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# THE CAVALRY JOURNAL

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Vehicles of the 9th Armored Division use the captured Remagen Bridge to cross the Rhine.

MARCH-APRIL, 1945

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EVELYN S. DRAYTON, *Book Editor*
M/SGT. HOWARD M. COLLINS, *Circulation Manager*
CORPORAL JOHN J. CORNETT, *Asst. Circulation Mgr.*

Volume LIV MARCH-APRIL, 1945 Number 2


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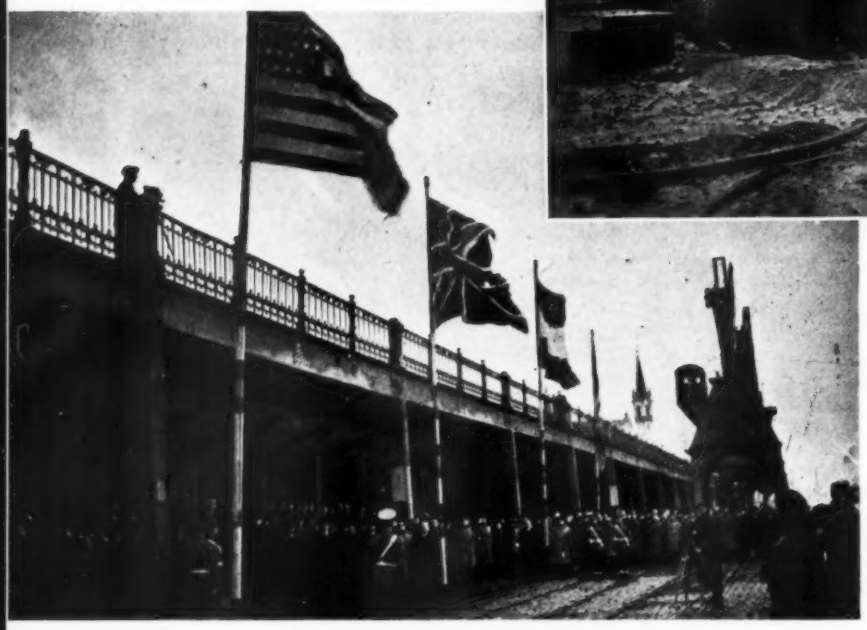
# The

**The Nazis' Ardennes gamble — which cost them 90,000 men — was aimed at the great port →**



*Above:* **Before the first Allied convoy could dock at the great port of Antwerp, 70 miles of Scheldt shipping lanes had to be cleared of enemy mines. Minesweepers of the Royal Navy began the hazardous operation of sweeping the Scheldt estuary even before the German guns on Walcheren Island were silenced. Picture shows mine exploding between ship and shore.**

*Above:* **Flags of Britain, America and Belgium fly on the quayside of Antwerp during the opening ceremony, November 30. The port is barely 60 miles from the German frontier, has nearly 30 miles of berths, 16 dry docks for ocean-going vessels and quays which extend for at least three miles. Antwerp is the third greatest port in Europe.**

ON the afternoon of September 4, 1944, leading elements of the British 11th Armored Division reached the outskirts of Antwerp. They swept down the Avenue de Jan Rijkswijk, the southern road into the city, with only spasmodic firing from the surprised German posts. The Belgians were hardly less surprised than the Germans but reacted with speed. Men of the Resistance Movement appeared from nowhere, to guide the tanks by back streets around the road barriers and fortified buildings manned by the Germans. The tanks reached the quays so quickly that they are reputed to have fired on and sunk a German barge at work on some belated mine-laying in the river. By the end of the day the Germans had retreated north of the Albert Canal and into the suburb of Merxem. They were only 1,000 yards from the center of the town, but they had lost Antwerp and its docks.

Slightly more than three months later, on the morning of December 17, the German Army launched an assault on the Allied positions in the Ardennes. Twenty or more divisions under General von Rundstedt tried to split the British and U. S. Armies in two (and so enable Rundstedt to repeat his 1940 success) and drive the Allies from Belgium and the port of Antwerp. The Germans spent approximately 90,000 men (killed and captured) and thousands of tons of precious fuel on the attempt. It failed.

Why was Antwerp so important a prize? Why was its loss as an intact port in September such a disaster to the Germans?

### A Question of Supply

The answer is that the defeat of Germany in the west is a question of supply, and that supply is a question of ports. The Allies have men, munitions, ships and trucks. All that they needed, in the autumn of 1944, was a place at which to unload them into France and the Low Countries.

They had the prefabricated port at Arromanches, but it was not sufficient for the enormous task. It had never been intended to be sufficient. It was intended to be one of a pair, but the other one was destroyed in the June gales. The Allies had Cherbourg, which had been partially restored as an anchorage, but not restored in its port machinery. In any case, Cherbourg had only poor road and rail exits.

The Allies had Dieppe, Boulogne and Ostende, but none of them could accommodate an ocean-going freighter. Rouen, le Havre and Brest were still shattered. The other ports on Europe's western Atlantic

# Prize of Antwerp

*by Captain Ernest Watkins**

seaboard were still under German domination. There was only Antwerp—a port which alone could handle 60,000 tons of freight a day, more than enough for all the Allied Armies.

Antwerp, before the war one of the major ports of Europe, lies 38 miles up the Scheldt from the seaward entrance of the estuary. Its docks are in two sections: (1) the river quays and the older basins around the western entrance to the Albert Canal, and (2) the modern dock system farther to the north—a series of deep water basins, with two entrances to the river and a total area of over 12 square miles. The entrance locks will take vessels up to 450 feet in length and 30 feet in draught.

Inside the basins are berths for 210 sea-going vessels, 600 acres of storage sheds (the largest, Entrepot Royale, holding 110,000 tons), granaries capable of storing 600,000 hectoliters of grain, refrigeration plant capable of taking 21,000 cubic meters of frozen meat, and coal hoists that can load 300 tons of coal into a ship in an hour. The whole port is electrically operated, the dock area has 500 miles of railway track, and there are 602 cranes of various sizes. South of the port itself is an extensive oil and gasoline storage installation.

Not only could the port equipment handle 60,000 tons a day, but the marshalling yards could sort and dispatch 6,000 railway wagons a day. Before the war over 40,000 tons a day could be sent forward by barge, along the Albert and Escaut Canals to the German waterways, or south by a network of canals to Belgium and France.

All these installations and equipment were left undamaged. This was the situation in September. The blow at Arnhem failed, so it meant a winter campaign, and that meant Antwerp must be put in use if a winter offensive was to be mounted.

### Germans Ready to Fight

But the port was still without access to the sea and was useless without that. By the time the French Channel ports were captured or cut off, the Germans had reorganized their forces there and were ready to fight for the positions they held on either side of the Scheldt River between Antwerp and the sea—so the Scheldt operations began at the end of September.

The Germans south of the river had withdrawn into the island made by the Leopold Canal to their south, and the Scheldt to their north. Most of the country was Dutch Flanders—flat, empty country, waterlogged around the length of the canal, mine-strewn, crossed by innumerable causeways and drainage ditches, and, in late autumn, cold and inhospitable in the extreme. To the north of the river is the peninsula of South Beveland and the island of Walcheren and North Beveland. South Beveland is connected to the mainland by a narrow neck of land and Walcheren to South Beveland by an even narrower causeway carrying the road and railway to Flushing and wide enough for little else. (See Map.)

The operations on both sides of the estuary had to be coördinated and follow the same pattern. The plan was for a direct assault to be followed by a seaborne landing on the enemy's flank or rear.

On the south, the first assault was made by Canadians on the center of the enemy's southern line. It started on October 6 with two crossings of the Leopold Canal. Opposition was intense but the enemy's counterattacks were beaten off, more men passed over the temporary bridges, and gradually the bridgeheads were

**Approximate Allied positions September 9, 1944—just after the capture of Antwerp and prior to operations along the Scheldt, which opened the harbor to Allied shipping.**

*Britian's Army Bureau of Current Affairs, who has recently returned from the front in Holland.

linked together. On October 9 the seaborne assault was launched down the Scheldt on the eastern tip of the enemy's island of resistance between the Scheldt River and the Allied bridgeheads north of the Leopold Canal. Again the attack made by the Canadian troops achieved tactical surprise, and the assaulting waves were on their first objectives before the German fire (some of it from Flushing across the Scheldt) became serious.

From there on, it was a hard battle to break the enemy's defense lines. Breskens and Fort Frederik were liberated by October 25. Resistance in Knocke on the coast, the last point held by the Germans, ceased on November 2.

Meanwhile, north of the Scheldt River above Antwerp the first stage was to carry the approaches to the South Beveland peninsula. A Canadian division on the left made the direct attack, supported by the Canadian armored division on their right. Progress was slow. The mainland from Antwerp north is almost flat, but broken by clumps of firs and stretches of sandy heath, admirable for defense. It was not until October 16 that the neck of the South Beveland Peninsula was reached. Here again the land is flat and featureless—miles of wet marsh or boggy fields commanded by the few roads on elevated embankments.

### Walcheren Hardest Nut of All

Resistance in Beveland was finally broken by the end of October after another seaborne landing made by British troops of the 52d Division on the southern shore. There only remained Walcheren, perhaps the hardest nut of all.

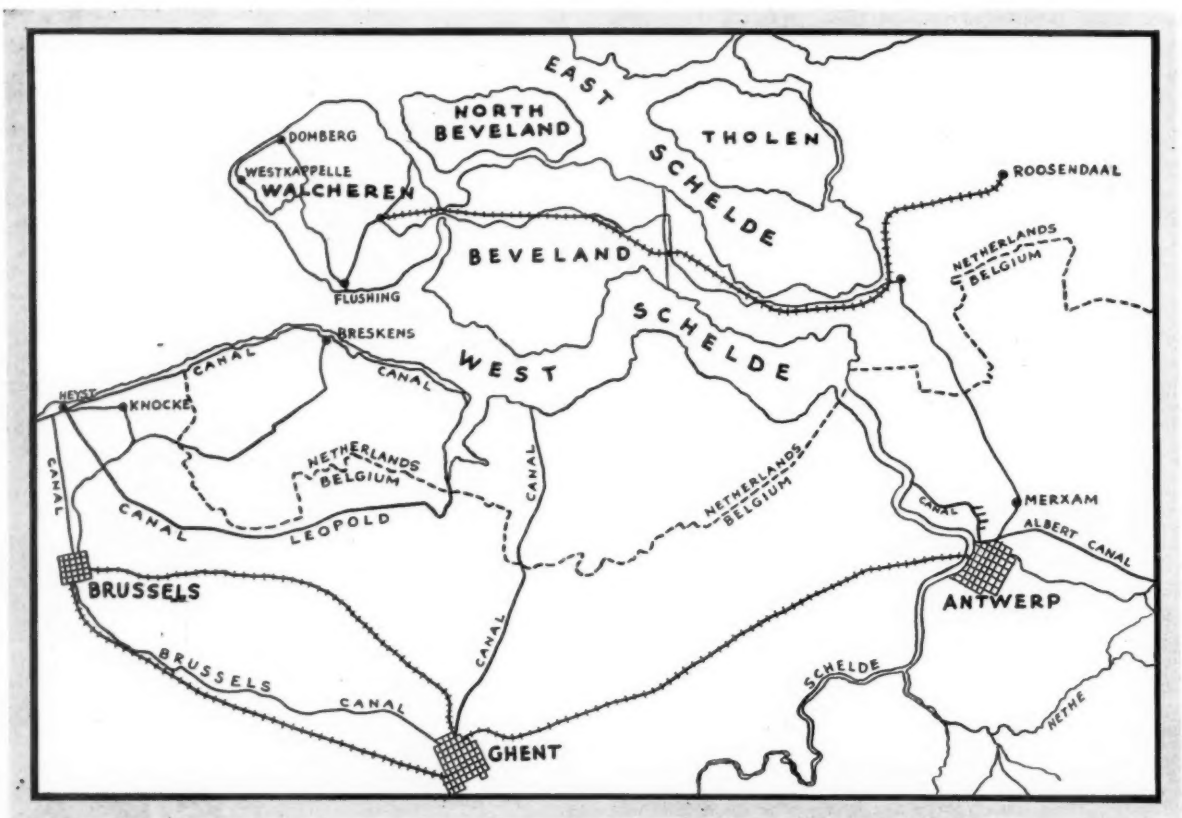
Time was pressing, and it was decided to make a three-pronged simultaneous attack on Walcheren Island —one on the east along the causeway from Beveland, one from the estuary against Flushing in the south, and one from the sea against Westkappelle on the west coast.

All were difficult. From the east it meant an attack over open ground against strong and well-sited positions backed by mortar and artillery fire. From the south and west it was a seaborne assault against fortifications and coast batteries that the Germans had spent years in completing.

The attack was rendered possible by the R.A.F.'s work in breaking the island's surrounding dykes at four points, so flooding the interior. The effect was to isolate the Germans where they stood, deny them any power of maneuver, and thus prevent any plans for defense in depth. It is grim, now, to see the fertile fields under water and ruined for years, but as a Dutchman said to me, "Better water than blood."

The attack on the causeway by the 52d Division entailed dogged fighting. The landing at Flushing achieved some measure of surprise, and the Special Service troops were able to sail over flooded ground to land in the town on the flank and rear.

At Westkappelle the attack was a plain frontal assault, in daylight, straight into the teeth of the enemy's fire. It was there that the naval support craft showed their endurance and heroism. They took most of the



fire. Out of 26 craft, 17 were sunk or damaged, and their casualties were proportionately high—but they put the assault troops ashore without too heavy a loss.

### Minesweepers Moved In

In four days of fighting the two commandos that worked south from Westkappelle had taken all the massive, mostly underground batteries along the stretch of sand dunes. Those advancing north and east from Westkappelle moved more quickly. In two days they had captured the major battery at Domburg and pushed on for over a mile beyond it. But Walcheren really fell when Flushing fell, on November 2, after bitter fighting in the western half of the town, and on that day the minesweepers moved in to the Scheldt Estuary.

Some day it will be possible to tell the full story of the minesweepers and how they deal with contact, acoustic and magnetic mines. Each type has its special risks. With all of them, there is no guarantee that it will not be the sweeper that explodes as well as the mine. A special tribute is due, too, to the Royal Navy and Royal Marine divers who must disarm under water those mines, that, because of their position (such as close to a dock) cannot be exploded. They work in ice-cold, muddy water, sometimes up to their necks in four years accumulation of silt.

With the minesweepers came the hydrographers, to map out the channel in the estuary and see how much it had changed in the four years since last an Allied craft had sailed in it.

While operations proceeded, in Antwerp itself preparations were being made to get the port ready for use. The Germans had used it for canal traffic, but the majority of equipment for ocean-going ships had been lying idle for 4½ years; and Antwerp's dock workers (9,000 skilled stevedores and 12,000 unskilled dock laborers) had had the same length of experience—not so much of idleness as of German occupation with its forced labor in Germany or undernourishment at home. Could the port work again efficiently?

The Sea Transport officials had arrived in Antwerp on September 5—the day after liberation—while the windows of the port buildings on the quay were still being sniped by Germans across the river. Their first task had been to see what the civil authorities, who owned the port, could do. The Burgomaster found the men to check over and repair all the electrical equipment. He also opened a register for former dock workers and the response was very gratifying. Finally, the Belgian Government agreed to defray all the costs of operating Antwerp as a port, including the total wages bill.

### One American, One British

Antwerp is both an American and a British port. The main dock area is divided into two sections, just as the road routes out of Antwerp are allocated between the British and the U. S. Armies. The joint operation is closely dovetailed, both at the top, on the Port Executive Committee, and at the bottom, in the posting of sentries and antiaircraft defense points. On one dock the sentry at one entrance barrier is American; at the other, British. Their patrol between is joint.

**Ducks and amphibious tanks head for the beach at Walcheren from landing craft. Twenty out of every twenty-five ships assisting in the British landings were sunk or damaged beyond repair—but the Royal Marine Commandos were landed and the big guns which threatened Scheldt shipping were silenced. The Allies secured a great port.**

A port is a transhipment area, not a storage area, and it is just as essential to see to the clearance of goods as it is to see to its unloading. As the bridges and tracks were brought into commission, roads and railways raised no unusual operating problems, but canal traffic did. Britain does not use barges of continental size, which range up to 150 feet in length and carry 2,000 tons. The Germans had left behind over 500 of these barges. Many are now in work again, manned by Belgians, their movements controlled by the Allied Inland Water Transport units.

When the port was officially opened the Burgomaster wanted a ceremony, so one was arranged. To the delighted surprise of her crew the first Liberty ship drew alongside, opposite a dais on which the Town Council as well as the Allied Naval and Military Chiefs were well represented. And there was a band.

It was not an empty gesture. A port for ocean craft has a life of its own. So many of the town's inhabitants, from dock laborer to average adjuster, have an interest in the sea. For 4½ years Antwerp had been dead. For 4½ years the Belgians had wondered if it would ever come alive again. And now it had. Life was flowing in up the Scheldt from the sea.

Antwerp was very much a combined operation, from Belgians who held the docks in September to the Canadians who fought at Breskens, and from the British who landed at Flushing to the Belgian and Dutch river pilots who reappeared, most of them from the Royal Navy in which they had enlisted in 1940 rather than accept the occupation. From Cherbourg to Brussels is 315 miles; from Antwerp to Brussels 25 miles. Those figures represent how essential Antwerp was to the Allies, and the disaster its loss has been to the Germans.

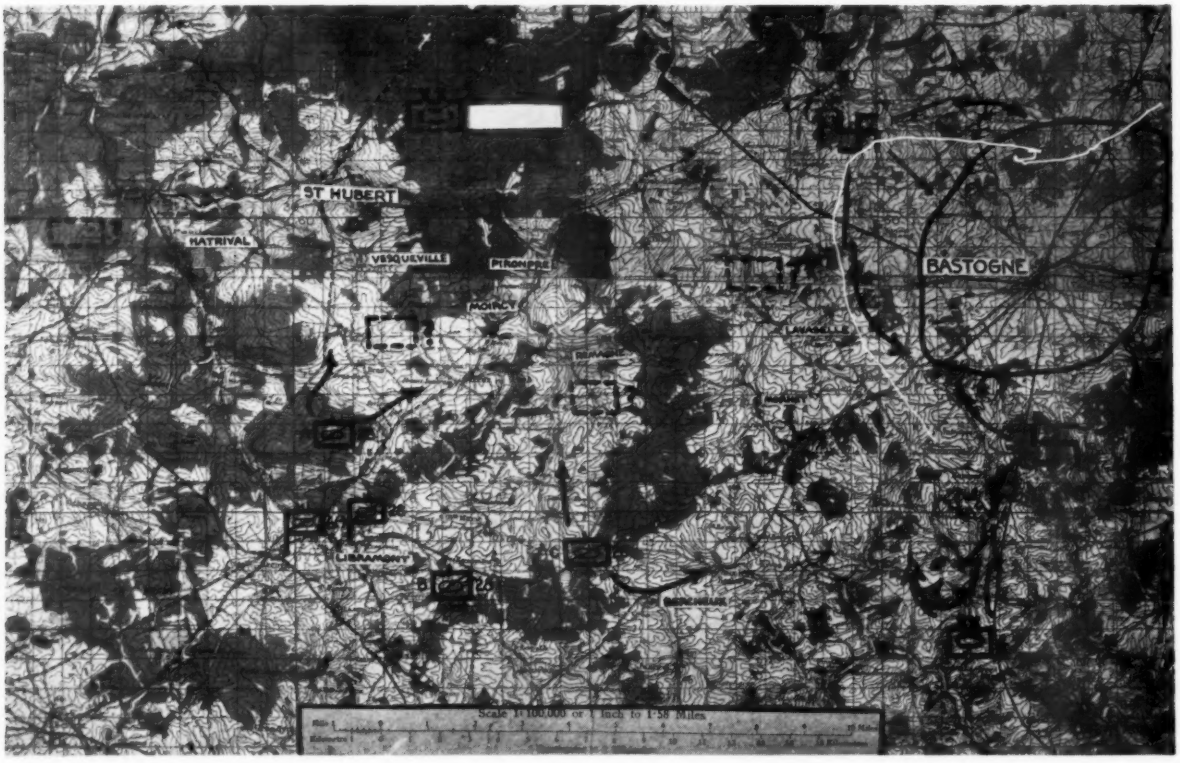
# With the Unicorn West

## by Captain Robert Willoughby Williams*

SOUTHERN BELGIUM in the winter is one of the coldest, most barren regions in the Eastern Hemisphere—especially around the middle of January when the thermometer has hibernated into its bulb for an indefinite period and there is a different wind in each valley and the armored cars glide down one side of a hill and spend twice as long getting up the opposite slope.

If the Germans had not launched a winter offensive in the Eifel region, which enjoyed overwhelming initial successes, the 6th Cavalry Group (Mecz) might still be engaged in dismounted fighting in the Saarbrucken area. To describe it lightly, the entire sector was studded with pillboxes and block-houses and the various other assorted prepared defenses which make a cavalryman's life a hectic one. It took the German winter offensive plus the need for cavalry in the north to shake the Unicorn loose from its dug-in positions along the Roselle River in the Forbach-Saarbrucken area, and send it hurrying northward into Belgium to assist corps in halting the rapid advance of the Germans to the west.

The sequence of events leading up to this committal are interesting and at the same time typical of what any cavalry unit might expect to encounter under similar conditions. On December 19 the corps headquarters, which was to have controlled the Saarbrucken campaign, was suddenly moved north into Belgium, to take control of troops in the Arlon sector opposing the left flank of the German salient. Effective at once, the 6th Cavalry passed to control of the corps in that area, the following day was transferred to another corps (moved in to replace the first) and on December 21 became attached in place to the 6th Armored Division. On December 24 all elements of the 6th Cavalry were relieved in place by another cavalry group, and at 0930 the first serials began movement to the northwest.




*Map No. 1.* **The advance to initial contact was made early on the morning of December 25 from a line of departure generally northwest-southeast through Libramont. Nothing was known of the disposition of enemy forces to the north.**

# of Bastogne

Signal Corps Photo

**Members of the 6th Cavalry Reconnaissance Group roll through the streets of Weltz, Luxembourg, January 23, 1945 —less than a month after the action "West of Bastogne." By then the "Belgian Bulge" had been rolled back and the way opened for the later drive to and beyond the Rhine. Germans lost an estimated 90,000 men in Ardennes offensive.**

Mobility? Yes . . . by 1700 December 24 all elements closed in the vicinity of Habay-La-Neuve, Belgium, after completing a march of 90 miles, through 4 countries—Germany, France, Luxembourg and Belgium—on roads congested by heavy traffic pouring northward to halt the advancing enemy. It was one of the most difficult marches ever made by the Unicorn—famous since 1861 for being able to move quickly from point A to point B and fight like hell when it got there.

## Situation

When the 6th Cavalry reached its assembly area in Belgium, the weirdest tactical situation since the Normandy breakthrough existed. Bastogne was surrounded by the enemy. There was no definite line of contact south or west of the city. Radio reports stated that the Germans were as far south as Neufchateau and as far west as Rochefort. Operations maps of higher headquarters showed information up to 72 hours old, which obviously could not be relied upon. There were virtually no troops west of Bastogne only the scattered remnants of the previously over-run 28th Infantry Division which were dug-in in the Neufchateau area and had no contact with the enemy. Thus the left flank of the corps in that area was left dangerously exposed. Especially was this flank a critical consideration, for the corps had been ordered to attack on the northeast and relieve the 101st Airborne Division and two armored combat commands cut off in the Bastogne pocket.

The 4th Armored Division, then the only armored division assigned to the corps, was given the mission of breaking through. With the open left flank, however, the drive could have turned into a military defeat had the Germans reacted to the armored thrust and counterattacked from the west. To secure this flank, the 6th Cavalry was to seize the three critical road centers of Libramont, Pironpre and Bercheux (see map No. 1), destroy all enemy encountered and by aggressive cavalry action give maximum assistance to the attack of the 4th Armored Division on the right.

As there were no friendly troops in contact with the enemy west of Bastogne, no front-line briefing could be given the troops prior to committal. It was one of those story-book situations which necessitates an advance into the unknown to gain ultimate contact and develop the contours of the enemy's OPLR (outpost line of resistance), main defensive line, and location of reserves, artillery and supporting troops.

## Task Force Committed

Late in the night of December 24 the 6th Cavalry Squadron was temporarily detached from group control and attached to corps command for the purpose of filling a gap between the right flank of the 4th Armored Division and the 26th Infantry Division. With

Signal Corps Photo

**The 11th Armored Division advances over wide plains near Longchamp, Belgium, en route to the Bastogne area during the latter part of December. Note snow-covered tanks scattered far across the area and silhouetted against the horizon.**

this loss, the task force was committed early on Christmas day with the following lineup:

Hq. and Hq. Tr., 6th Cav. Gp.
28th Cav. Rcn. Sq.
Co. C, TD Bn.
Co. B, Engr. (C) Bn.
Btry. C, Armd FA Bn.

The line of departure for the operation ran generally northwest-southeast through Libramont, first of the three immediate objectives assigned the task force, known by this time as TF Fickett.

In a rather amusing way, one ¼-ton vehicle secured the line in the vicinity of Libramont. Major Thomas H. Stewart, III, the group S-3, rode recklessly into the town early Christmas morning to see exactly what was going on. To his surprise, the town was clear of enemy and the Belgian peasants were proceeding with their daily chores as though war were 1,000 miles away. Acting quickly, the command post of the 6th Cavalry Group moved into Libramont, closely followed by the reconnaissance elements of the 28th Cavalry Squadron.

Initially, the 28th Cavalry Squadron employed Troops A and C abreast, while holding Troop B and support troops in reserve. To each committed reconnaissance troop there was attached a platoon of engineers and a platoon of TD's. Troop A was directed toward St. Hubert and Moircy, while Troop C was directed generally along the axis Bercheux-Morhet, with the added mission of maintaining contact with CC "B" of the 4th Armored Division on the right.

Contact with the enemy was not gained until early in the day of December 26, when almost simultaneously reconnaissance patrols across the entire zone reported engagements with the enemy. The Germans, reacting strongly to our advance up the main Libramont-St. Hubert road forced forward elements of Troop A to halt just below the line Hatrival-Vesqueville. Heavy small arms and some antitank fire was encountered. The remainder of Troop A advanced northeast to the outskirts of Moircy, where it was engaged by dug-in troops employing small arms, mortar, and assault gun fire. The presence of assault guns in this area was of immediate interest to all commanders.

On the right, Troop C reported only scattered contact, until late in the day, when it was halted before Morhet by a pocket of organized resistance. Earlier in the day, Bercheux, second objective of the task force, had been found unoccupied by the enemy.

Already the picture of the enemy was forming. But, *what* was facing the 28th Squadron? Identifications were needed and needed badly.

## S-2

It is interesting to look back upon this particular operation from an Intelligence point of view and see the tremendous part that the S-2 of a cavalry group can

play in the conduct of operations. To those who wonder why the S-2 job is handled by a major rather than a captain, and why he needs an assistant, it might be stated that a cavalry reconnaissance unit, in spite of the many varying missions assigned it from time to time, is still, fundamentally, an Intelligence organization.

Intelligence within the group headquarters—which for obvious reasons cannot be handled on too large a scale—should be handled on a plane of thought comparable to that of the G-2 section of a division. Knowledge of the enemy and his capabilities forms the skeleton about which the cavalry commander plans his moves and directs his search for information.

To those cavalry groups and squadrons not yet committed on the Western Front, it should be said, "Stress Intelligence! Follow the trends in enemy organization. Study especially the German Volksgrenadier Divisions and the techniques of German small-scale counterattacks—these to mention only a few. Further, plan to operate with other Intelligence teams. Otherwise, the organization is sorely handicapped. A photo-interpretation team is also a valuable asset to the headquarters."

To return to the story—identifications were badly needed in the St. Hubert-Morhet area. Corps had only vague reports as to enemy forces there. St. Hubert remained a large question mark, unsolved by tactical air reconnaissance, which for the following week continued to report no movement about the city. Higher headquarters, on the other hand, continued to report indications from many sources that a large enemy force was concentrated just north of the city. What other forces were in the area, however, remained the mystery of the moment (see map No. 2).

***Map No. 2.*** **Approximate boundary of the farthest German penetration in "Battle of the Breakthrough," December 17-January 3. When the 106th Cavalry reached Libramont December 25 to reconnoiter the area for corps, neither disposition nor strength of the enemy was known.**

## Information

On the second day of the operation, Troop C attacked and cleared Morhet, with no determined resistance encountered. The town was obviously not a part of the enemy's OPLR. No identifications were obtained in this operation. To the west, resistance stiffened at Moircy and Remagne. Fire from 88mm and 20mm AA/AT guns halted all vehicular movement. Late in the day a patrol from a GHQ Flak (AA) battalion was encountered just south of Moircy. It was later learned that the battalion had been attached for some time to a German division not previously contacted in that area, but there were still no evidences of enemy infantry. The nature of the resistance at both Moircy and Remagne appeared heavy in large weapons but light in personnel.

**The 4th Armored Division, which broke into Bastogne and rescued the harassed garrison January 3, is shown here moving toward that area from the south December 27.**

Signal Corps Photo

Still farther to the west, the enemy displayed decided aggressiveness in screening along the general line Hatrival-Vesqueville. Artillery fire was encountered here as well as small arms, antitank and mortar fire. The situation below St. Hubert remained virtually unchanged throughout the remainder of the operation. Patrols were unable to pierce the enemy counterreconnaissance screen there.

The appearance of mine fields, road blocks and demolitions during the second day of operation along the entire front indicated that the enemy, for the moment at least, did not plan an offensive in this area. The enemy's attitude and the nature of resistance encountered combined to corroborate this observation.

On the third day of the operation, Troop B, committed in the Moircy-Remagne area, relieved the bulk

of Troop A, which then directed its attention solely to St. Hubert and the wide-open left flank west of the city. An attack on the enemy in Moircy during the day was repulsed, as was a similar attack on Remagne. It was obvious that he was serious about these towns.

On December 25 a GHQ AT battalion was reported en route to St. Hubert. The battalion was discovered to contain a company of 12 *jagdpanthers* (88mm PAK 43 on Mk V chassis) and two companies of 75mm assault guns on Mk IV chassis. The fact that assault guns had been reported continuously in the St. Hubert-Moircy area tied in perfectly with this information.

At the conclusion of the third day of operations, the general picture of the front ran something like this: The enemy, employing obstacles combined with fire principally from heavy, special purpose weapons, was screening vigorously along the line Hatrival-Vesqueville-Moircy-Remagne—and these troops evidently expected infantry to arrive at any moment to relieve or reinforce them. West of Remagne, no resistance had been encountered by Troop C until it reached the outskirts of Lavaselle. Here, for the first time, this troop came under well-directed artillery fire and opposition from dug-in positions. As yet no enemy identification had been made in this area.

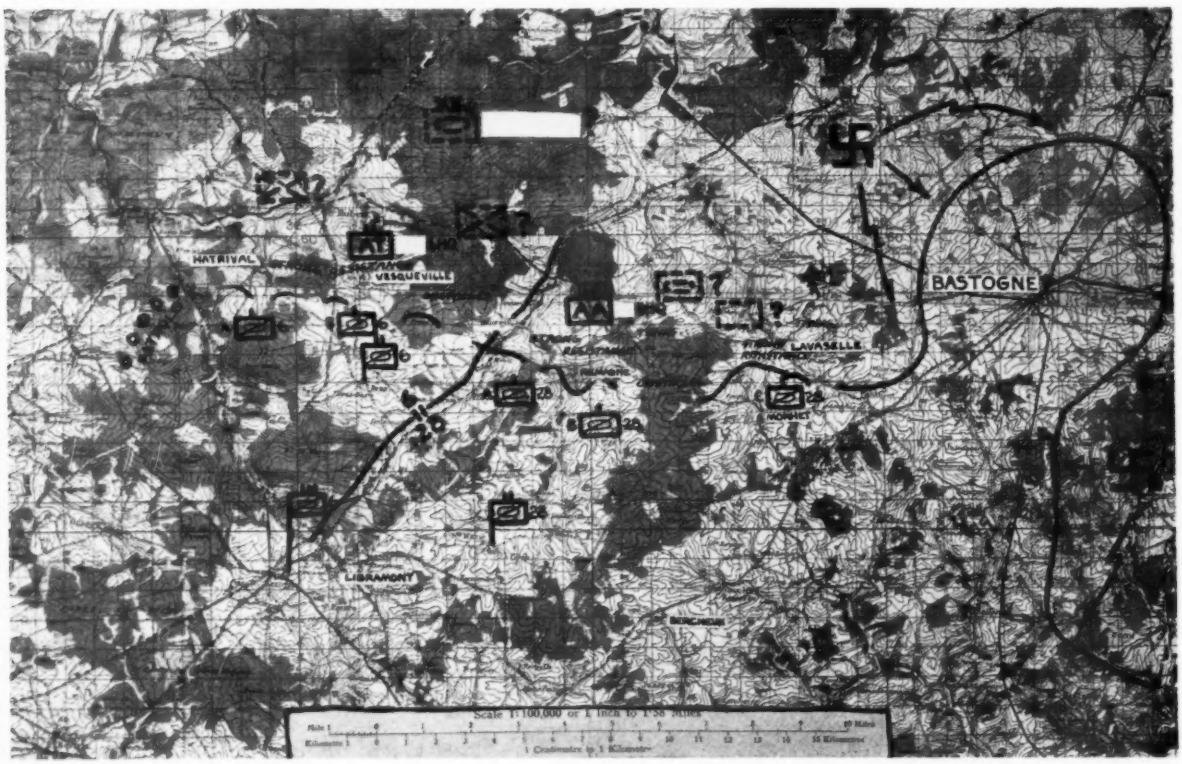
On the fourth day of the operation, the 6th Cavalry Squadron was relieved of its job as contact squadron between the 4th Armored Division and the 26th Infantry Division and, rejoining the command, immediately took over the St. Hubert area east to, but exclusive of, the main Libramont-Moircy road (see map No. 3). Troop A, 28th Cavalry Squadron then moved east to a position in squadron reserve.

### Completing the Picture

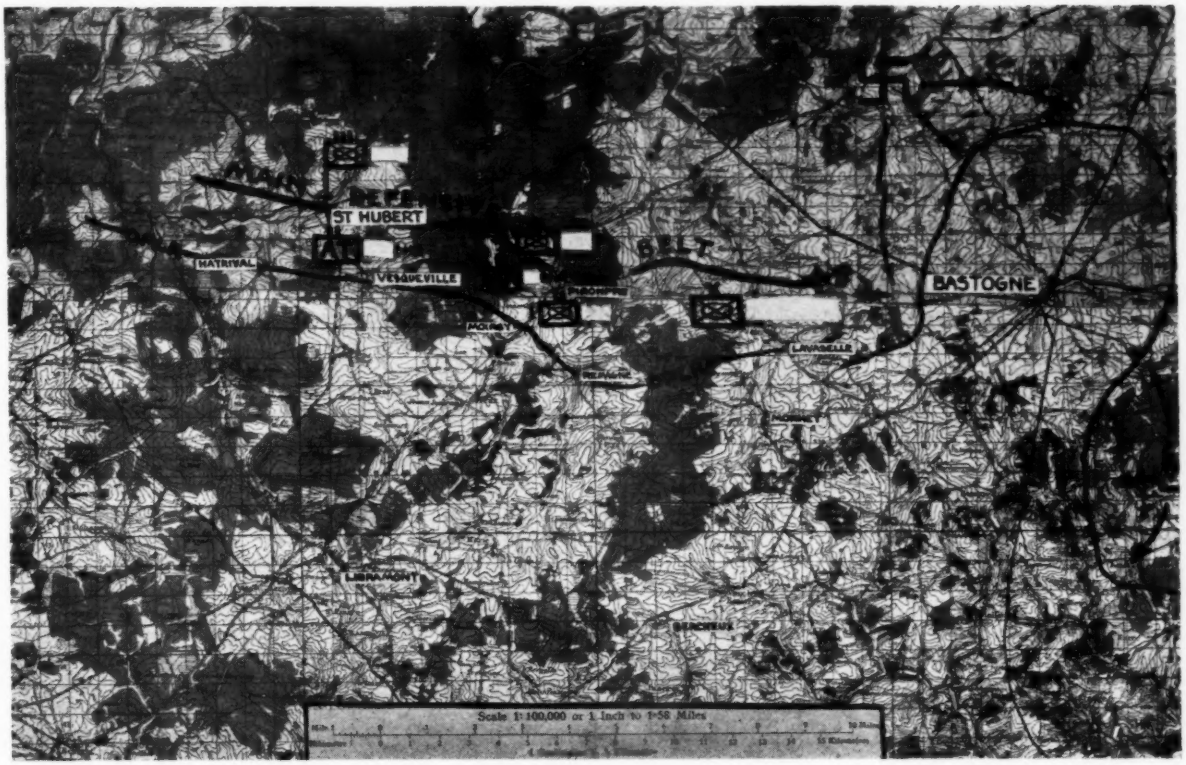
On December 29 several interesting developments took place. Troop C, 28th Cavalry Squadron combined with elements of CC "A" 9th Armored Division (then employed in an attack to the north between our right flank and the left flank of the 4th Armored Division), made an assault on Lavaselle, which did not succeed. Surprisingly heavy resistance was encountered here from all types of weapons including tanks. Again a puzzle. What were tanks doing in this area? There had also been previous reports of tanks in the vicinity of Remagne. To what did these reports add up?

The squadron verified the presence of an enemy task force made up of two battalions of panzer grenadiers and one tank battalion. The latter was being used in small groups as local reserves along the front from Remagne to Lavaselle. For the moment, the picture in this area was clear, but to the west new developments were taking place.

Elements of a panzer grenadier regiment of a panzer




***Map No. 3.*** **Map shows situation at end of day December 28, 1944. 6th Cavalry Squadron had taken over St. Hubert zone east to, but exclusive of, the Moircy-Libramont highway. The enemy picture was beginning to clear, although only the two indicated GHQ special purpose units had been positively identified at that time. Reconnaissance continued.**




***Map No. 4.*** **At the end of the fifth day of the operation the enemy picture suddenly became clear. Unit identifications, PW statements and physical contact combined to give a true picture of the enemy's strength, location, disposition, and the contours of his OPLR and main defensive belt. On December 30, the 6th Cavalry was drawn from the line.**

division, not previously identified since the outset of the operation, had been contacted near Moircy. It was learned that the entire regiment had moved into the St. Hubert area December 27-28, and one battalion had been sent to the Moircy-Remagne area to bolster the line there. One battalion of the regiment had remained in St. Hubert, while the third battalion was dug in along the main east-west road north of Moircy vic Pironpre. This regiment furnished the infantry replacements intended for the GHQ AA and AT battalions identified south of Moircy and at St. Hubert. There was no information to indicate that elements of the panzer division, other than this regiment, were in the area. From a patrol along the Pironpre-St. Hubert highway it was learned that the regimental CP was either in St. Hubert or in the close proximity of it, and that a minimum of one battalion was in the Moircy-Remagne area.

Now a complete picture of the front was forming. The bits and scraps of information which had been gathered together for 5 days had begun to take shape. It had taken lives and equipment, but the picture was there for the asking. At the conclusion of the 5th day of operation, a commander could have launched a well-planned attack by basing his scheme of maneuver on the information which had been pieced together up to that time.

Briefly, the conclusions were these: a strong outpost line ran from Hatrival to Vesqueville to Moircy-Remagne, thence northeast to Lavaselle. Behind this outpost line the main defensive belt ran generally St. Hubert-Pironpre (the vital road center here being of paramount importance), thence east and northeast to the high ground north of Lavaselle. (See map No. 4.) The OPLR was made up chiefly of a system of strong points built around the east-west line of towns mentioned above. Space between these strong points was defended by artificial obstacles, covered both by direct and indirect fire, which employed a minimum of personnel. It was the same old Jerry plan of defense . . . but Jerry's defense is tough if you don't know just where he is and what he is up to.

December 30 found the situation generally unchanged across the entire front. Two subsequent attacks on Remagne failed. The 6th Cavalry Squadron, commanded by Lt. Colonel Samuel McC. Goodwin, was attempting to by-pass St. Hubert to the west, and was making encouraging progress. Then the order came that the job was over. Corps had received sufficient troops to take over the area and attack to the north and northeast. All elements of the 6th Cavalry Group in the zone were relieved, and on December 31 the forward elements of the group were passed through by fresh troops attached to Corps.

# FROM PARIS TO BE

## 125th Reconnaissanc
## In Pursuit of Route

ON September 1, 1944, the 125th Cavalry Reconnaissance Squadron (Mecz), commanded by Lieutenant Colonel Anthony F. Kleitz, assembled in a chateau courtyard in the vicinity of Villers-Sous-St. Leu, northeast of Paris, where at approximately 1300 hours it was given the following briefing:

"The Germans are known to be retreating to the north and northeast. Their strength, composition and present location is not known.

"In the XIX Corps zone, the 30th Division (motorized) is to move to the northeast and assemble in the vicinity of St. Amand—Maulde, France. The 2d Armored Division will be on the left and the 28th Division of the V Corps on the right. Task Force Harrison, composed tanks from the 743d Tank Battalion and one battalion of infantry from the 30th Division, is to advance to assembly area at St. Amand, France—Maulde, Belgium.

"Squadron mission is to make an aggressive reconnaissance in front of Task Force Harrison and secure the 30th Division assembly area near St. Amand—Maulde, France, a distance of approximately 110 miles.

"The axis of advance will be as follows: Nogent, Les Ageus, Gournay-Sur—Aronde, Roye, Marchelepot, Peronne, Cambrai, West of Valenciennes, St. Amand to assembly area vicinity Maulde, Belgium.

"Troop C will be on right of the squadron sector, Troop A on the left. Main axis is inclusive to C to Roye then it becomes inclusive to A. (The right and left boundaries were pointed out.)

"Supplies will follow on main axis. Squadron CP will be on main axis and follow by bounds. Initially, the squadron CO will be with CP.

"Troop C will move out as soon as ready."

## Troop C

*by Captain Reuben F. Trant, Jr.**

THE previous mission of Troop C had shown that troop headquarters could not be set up even temporarily; movement was so fast that communication failed rapidly. With this in mind, the 3d Platoon was ordered to advance on the main axis followed by Troop Headquarters, the attached Assault Gun Platoon of Troop E, then the 2d Platoon. The 1st Platoon was to protect the right flank by advancing on the secondary roads on the right and abreast of the 3d Platoon on the main axis.

Troop C cleared the assembly area at 1330 hours and began its mission. On the main axis no resistance was encountered until the troop entered Roye. To the right, the 1st Platoon met slight resistance in the form of light small-arms fire but was hardly slowed in its advance.

In Roye a considerable amount of small-arms fire was received, and French civilians warned that a large number of Germans were a short distance out of town to the northeast and said that they had tanks.

The 3d Platoon advanced approximately one mile toward Carrepuis when the point was fired on by small-arms fire. The point could see a column of German half-tracks and some dismounted men on the Roye-Marchelepot road. Lieutenant James D. Neuman, commanding the 3d Platoon, called for the Assault Gun Platoon, which went forward and fired about 6 rounds of cannister on the opposition and a few rounds of HE on the German column on the other road. The German column was soon out of sight over a ridge line.

The 3d Platoon then resumed its march for about ¼ mile when the point was again fired upon by small arms. A patrol, sent to the right flank, discovered a Mark III tank with crew in position approximately 500 yards to the front. The assault guns, directed by Lieutenant Kenneth Scott, Troop E, again went into action and with two rounds of HE set the tank on fire. Two or three rounds of cannister fired in the direction of the small-arms fire ended further resistance there. Almost invariably two or three rounds of cannister from an assault gun would clean out any small-arms fire.

The platoon had just mounted up when a German staff car traveling at a high rate of speed, approached the column from the front. Seeing our vehicles the occupants tried to stop, turn around, and escape, but the .50 caliber on the lead armored car knocked it out. Two wounded German officers, the driver, and two brief-cases containing official papers and maps were captured and sent back to 30th Division Headquarters.

In the meantime on the right flank the 1st Platoon was encountering much the same type of opposition but was keeping abreast of the 3d Platoon. It also reported that all bridges so far seen across the Somme Canal had been destroyed.

On entering Carrepuis the 3d Platoon was again fired on by small arms. In a battle that lasted about 45 minutes the platoon captured 13 Germans, killed 8, and destroyed one auto in which several of the enemy

*Commander, Troop C.

# GIUM–

## Squadron
## Germans

***Above:*** **Tanks of an armored division (unit not identified) roll across Flanders. German units withdrew so fast that it was often difficult for the Americans to maintain contact.**

***Left:*** **A jeep crosses the Belgian border September 8, several days after the 125th reached Belgian soil. Note traffic beyond gate. Roads were jammed with vehicles of all types.**

Signal Corps Photos

had tried to escape. The platoon suffered no casualties.

These small-scale battles continued throughout the day. Every town was defended by a small number of Germans, most of whom were either killed or captured. The American forces were moving so fast that as many Germans were by-passed as were met. After the first attempt to send prisoners to the rear, which nearly resulted in the capture of the escort party, all prisoners were delivered to FFI forces (French Forces of the Interior), who were armed with the weapons captured with the Germans. The casualties inflicted on the Germans is not known, as the dead and wounded were not counted and prisoners were handed over to the French in bunches. Many times, after delivering captured arms to the French, the troop moved forward while the French were left to mop up the remaining Germans. It is estimated that at least 60 prisoners were taken and approximately 25 killed and wounded, during the days activities.

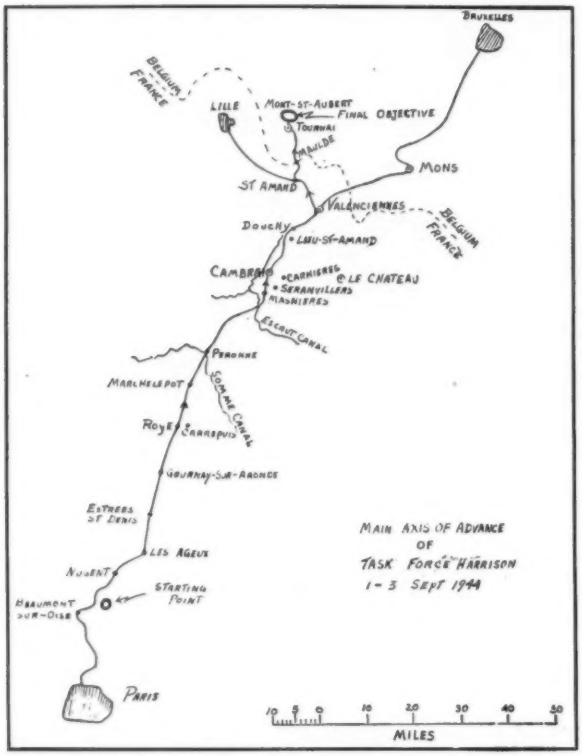
Troop C continued to move along secondary roads about one mile east of the main axis of the task force advance. The 1st Platoon reported all bridges out north to Peronne, along the Somme Canal. Troop A had crossed the river at Peronne.

In the meantime, the 82d Reconnaissance Battalion, which had jumped off earlier than the 125th Squadron, had reached the Somme River to its front and found all the bridges in its zone blown. While the 2d Armored Division rapidly established a bridgehead and built a bridge, its reconnaissance elements spread out. One of the elements of the 82d, moving to the east, reached the bridge at Peronne, attacked a sizable bridge guard, and prevented them from blowing the bridge. With no waste of time, the 82d patrol continued on reconnaissance to the northwest.

About 30 minutes later, Troop A of the 125th reached and cleared the bridge at Peronne. It was then decided that Troop C return to the main axis and cross at Peronne. The troop moved into Peronne at dark and since some vehicles needed gas the troop bivouacked in the town square. During the night enough gas to keep the assault guns rolling was borrowed from a few casual vehicles and the troop prepared to move out at daylight.

The advance on the main axis had been faster than that of Troop C and Task Force Harrison was following Troop A with no interval. During the night Troop C received orders to use the main axis until the head of the column was reached, then to move back out on the right flank.

At daylight September 2 Troop C left Peronne and overtook Troop A at Masnieres, where a fire fight was slowing the advance. The 1st Platoon under Lieutenant Leslie Springs, was again sent to the right flank. The rest of the troop cooked fresh eggs given by the French on the way. During the breakfast, artillery began falling in and near the main column which was two and three vehicles abreast. Impossible to move the ve-




**Map 1. Main axis of advance of Task Force Harrison.**

hicles, the men took cover. Fortunately, the troop suffered no casualties or damage.

The 1st Platoon reported reaching Seranvillers with no opposition. The rest of Troop C then moved out to the flank, with the 2d Platoon under Lieutenant Harry Harmon in the lead. On reaching Seranvillers the troop moved toward Carnieres with the intention of paralleling the Cambrai-Valenciennes road.

At the road junction one mile southeast of Carnieres the head of the column was at the main road Cambrai—Le Cateau when a truck towing a 5-barreled Nebelwerfer approached from the west. Practically everyone watched it stop, watched the Germans unhook the gun, turn the car around and start back. Then every gun in column, including 37's on the armored cars, opened fire. A patrol was sent to find out the results. It returned with the Nebelwerfer and one wounded German who had jumped out of the car. The car escaped. The fact that the German stated that all the passengers except the driver were wounded did not make anyone feel better about the display of bad marksmanship.

From that meeting till the town of Lieu-St.-Amand was reached, the pattern of fighting was much the same as that of the previous day. Whether the Germans planned the small rear guard actions or were forced into them is not known. It was known, however, that their intention was to leave France. The evidence of this was along the road and in all the towns. Every town had marks along the walls and store windows left by machine gun bullets. Either for amusement or through fear of the civilians and to keep them off the streets, the Germans had sprayed the towns with fire as they retreated through.

At this time, all troop vehicles were nearly out of gas and several armored cars had flat tires. When squadron headquarters was notified of this the troop was ordered back to the main axis and given a rendezvous point to meet the gas truck. Returning to the main axis at a point ¾ mile north of Lieu-St.-Amand, the troop was amazed to find vehicles moving northeast at about 50 miles per hour. Anywhere to the right or left of the main road it was necessary to fight through practically all towns.

About one mile northeast of Douchy the troop gassed up and repairs were made on all tires that required them. At this time the troop learned that the objective had been changed to the area north of Tournai, Belgium and that it was to use main axis and proceed with least possible delay to that point.

With that order Troop C's reconnaissance was ended for the day. Knowing the objective, the troop (less 1st Platoon, with which it had lost communication) followed the traffic and tried to keep from being run off the road. At Maulde on the French-Belgian border (the last town on the maps) Lieutenant Colonel Kleitz appeared from the side of the road and handed up maps marked with the new assembly areas near Tournai. Reaching its assembly area at dark, Troop C (less 1st Platoon) received orders from the squadron commander to outpost the main road junction in Tournai and send patrols to the west in an effort to contact the 2d Armored Division, which was believed to be about two miles to the southwest of Tournai.

During the night the outposts received a considerable amount of 20mm and artillery fire. Several enemy patrols or groups of stragglers walked into the outposts and were captured. Booty included two 20mm's complete with horses and ammunition. There were enemy casualties and two troop casualties. The 2d Armored Division was not contacted.

Early the next morning Lieutenant Colonel Kleitz received orders to seize the high ground known as Mont-St-Aubert, about three miles north of Tournai, which dominated the 30th Division concentration area. Troop A, with assault guns attached, was given the mission of taking this ground by approaching it from the southwest. Troop C was to approach the objective from the southeast, prepared to support Troop A on call.

Troop A reached the objective without opposition, and Troop C followed to go into bivouac of the objective.

Later, the next day, the 1st Platoon which had finally come within range of the troop "506" radio, was directed to the bivouac area. It had reached the original objective and, not knowing of the change, had waited there until notified by friendly units of the squadron location.

The first day the troop traveled 83 miles, the second day 66 miles, and the third day 9 miles. It had only two battle casualties and no vehicle casualties, while it had inflicted an estimated 125 enemy casualties, destroyed one Nebelwerfer, one tank (Mark III), three staff cars, and captured two 20mm guns complete.

One of the features of this rapid advance was the solution of the squadron's supply problem. The established policy was to carry as little as possible on the outside of the vehicles in order to reduce the chances of vehicles burning if hit by artillery or tracer small arms. Consequently, when the orders were received for this mission the troop had no gas reserve and less than three days rations. To counter this disadvantage, the squadron commander ordered a 6 x 6 gas truck and a 6 x 6 water truck to travel with the forward CP. When the troops needed gas, it was only necessary to contact squadron forward echelon to get it. After reaching the new assembly area, Captain John H. Brackbill, squadron S-4, went back to a point 30 miles southwest of Paris for gas and the rest of the service crew, and within 8 hours after the arrival of the forward elements at the new area, supplies of all kinds were available.

Most principles of tactics were overlooked in the mass rout and retreat of the Germans. The troops often traveled in one group, as if making a road march in the states. The one thought in everyone's mind was to get there before the Germans reorganized. In that respect, as in all others, the mission of the 125th Squadron was completed as directed.

# Troop A

## *by Captain Dale D. Stithem, Commanding*

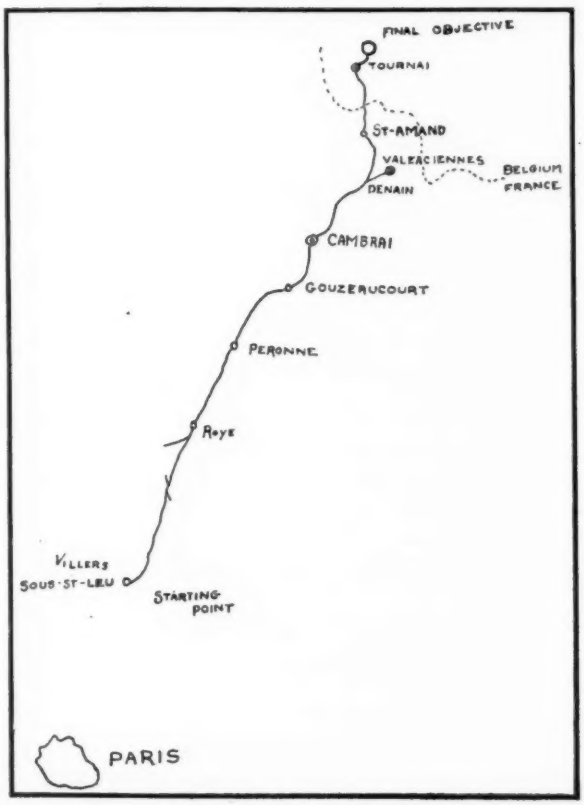
AS Task Force Harrison moved out, it was flanked on the right by the 28th Infantry Division, and on the left by the 113th Cavalry Group with the 113th Cavalry Reconnaissance Squadron preceding the 79th Infantry Division. To the left of the 79th was the 2d Armored Division.

The pursuit was definitely under way and little time was available for orientation. The axis given Troop A went north and northeast through Roye, Petronne, Cambrai, and St. Aumand, and across the French-Belgian border into Tournai, Belgium. Orders were to by-pass all opposition of great strength and, continuing en route, report conditions of roads, bridges, by-passes taken, and the location of enemy positions by-passed or overrun.

The advance proceeded with light opposition. During the first 60 miles a number of road blocks, manned only by machine guns and riflemen, were encountered and knocked out. By 2130 hours, September 1, the troop, having reached a point approximately 8 miles south of Cambrai, received orders to stop along the side of the road and wait for the gas truck. There was still enough gas in each vehicle for at least 30 miles, but having the opportunity to refuel, the troop took normal security precautions and halted.

The gas truck, however, did not catch up and at 2300 hours orders were received from Lieutenant Colonel Kleitz to move out and continue on mission. Gas had not arrived for anybody in the task force but it was believed that it would soon catch up. The 3d Platoon, under Lieutenant Robert O. Bradley, led out, followed by the 2d Platoon under Lieutenant Jeremiah J. O'Donnell, then Troop Headquarters, and finally the 1st Platoon, under Lieutenant Henry C. Lyman, as mobile reserve.

After moving ahead approximately ¾ mile, Sergeant William E. Proctor, Jr., 3d Platoon, riding in the point peep, caught up with the tail of a German column of horse-drawn carts carrying supplies north along the same route. Sergeant Proctor reported the situation to Lieutenant Bradley who quickly spread his three machine gun peeps (each equipped with an SCR 510 radio and a .30 caliber machine gun) across the road and shoulders and placed an M8 armored car on each side of the center peep. (M8 armored cars mount a 37mm antitank gun with a .30 caliber machine gun on a ring-mount above the turret.) By radio Lieutenant




**Map 2. Route of Troop A from Paris to Belgian border.**

Bradley ordered all 5 vehicles to move forward, firing all weapons as they advanced. This action soon eliminated the enemy column; all carts and horses were destroyed.

The column then proceeded to the Escout River just south of Masnieres, France. About 200 yards up the road the leading section of the 3d Platoon, under Sergeant Proctor, got pinned down before it could cross the bridge over the Canal de St. Quentin. The approach to this bridge was partially blocked by a burning German half-track whose 20mm ammunition was exploding in all directions, and on several occasions small artillery shells or similar explosives blew up.

As the 3d Platoon reconnoitered for a by-pass 4 medium tanks from the 743d Tank Battalion moved forward and quickly overran the troublesome antitank guns on the north side of the canal. One tank hit an enemy mine near the bridge and lost a track—the only loss of any type so far on the march.

At this point Lieutenant Lyman's 1st Platoon was ordered to reconnoiter the bridge across the canal and prepare to take the lead, leaving the 3d Platoon, which had led the column up to this point, to revert to mobile reserve. After taking a peep across the bridge and returning without being fired upon, Lieutenant Lyman reported by radio that he was moving his platoon across the canal. The remainder of the troop was then alerted to move out. This was at approximately 0400, September 2—just an hour after Sergeant Proctor's section of the 3d Platoon had first run into trouble.

Troop A proceeded across the bridge, through the town of Masnieres, and approached the southern edge of Rumilly, about one mile to the north of Masnieres. Once again the leading elements met a hail of 20mm antitank fire which knocked out the two leading M8 armored cars. This occurred when the 20mm fire concentrated on the point where the front wheels join the axle. Brigadier General Harrison, in command of the task forces, was near the front of the column at this time and was wounded by 20mm fire.

The enemy appeared to be withdrawing his antitank weapons shortly after each encounter and setting them up again either on the road leading into the next town, or just on the far side of town. Troop A was pulled off the road along the railroad tracks just north of Rumilly, and the medium tanks were again brought up to overrun the guns.

In a few minutes Major General Hobbs, commander of the 30th Infantry Division, arrived and assumed command of the task force. After a swift check of the situation, he ordered the tanks to attack from the hill and, if no opposition was encountered, to move on into the town of Cambrai just 4 miles ahead. Using fire and movement, two companies of tanks lined up on the crest of the hill and delivered fire while another tank company moved up and into Cambrai from the left flank. This attack came off at 1000.

Meanwhile, Lieutenant O'Donnell's 2d Platoon reconnoitered to the right in search of a by-pass around the town of Cambrai in case the enemy had a strong enough force in the town to prevent the tanks from breaking through.

Sergeant Proctor had been sent ahead to contact the tanks, get the situation, and see if it was possible for the troop to resume the lead, returned about 1100 and reported that the tanks had overrun the enemy guns and that the town was clear of enemy.

Resuming the lead, Troop A moved through Cambrai shortly before noon and proceeded toward Iwuy 5 miles to the northeast. The 3d Platoon was again in the lead, followed by the 1st Platoon and Troop Headquarters, with the 2d Platoon, which was radioed to rejoin the troop on the main route, acting as mobile reserve. No enemy were encountered, but on the outskirts of Iwuy, orders were received to hold up the advance until further notice, while the infantry of the task force cleaned out the enemy in Cambrai.

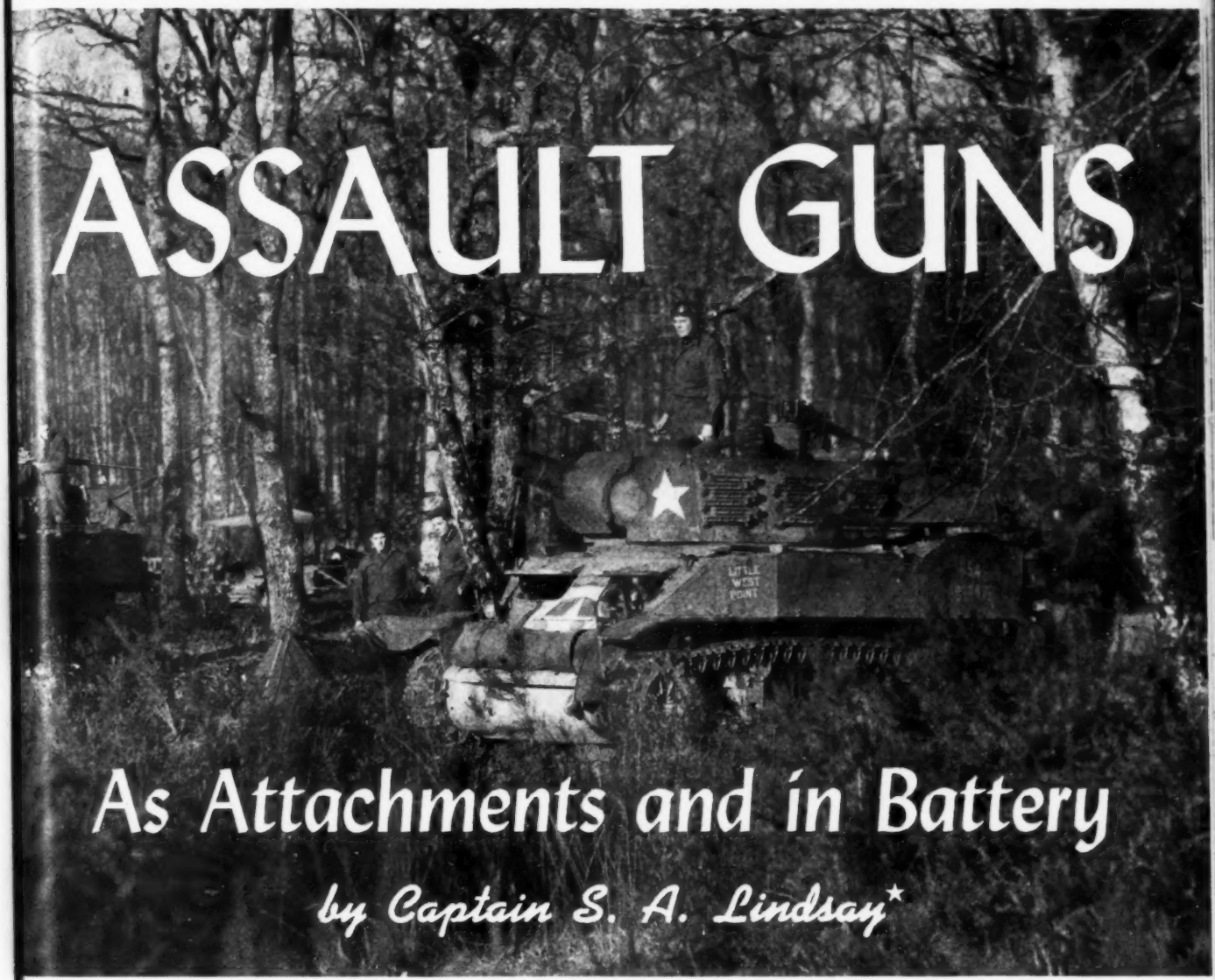
The 3d Platoon was ordered into Iwuy with instructions to block all roads leading out of town to the north, northeast and northwest. Lieutenant Lyman was instructed to establish a road block south of the bridge across the canal on the south edge of town. Troop Headquarters and the reserve platoon were held along the highway between Lieutenant Lyman's road block and a group of buildings about a mile to the rear.

Lieutenant O'Donnell, who had just returned with the 2d Platoon, reported that while looking for a by-pass, his platoon had destroyed an enemy truck and trailer loaded with men and machine guns, killed two Germans, and brought back 6 prisoners. Lieutenant O'Donnell established a road block in the vicinity of the troop CP covering the right and left.

Shortly after 1200 Lieutenant Bradley, from his position in Iwuy, radioed that at least 6 enemy armored cars were moving up toward Iwuy along a sunken road from the southeast. Lieutenant Lyman intercepted this message about the same time that his gunners also spotted the vehicles. These 6 vehicles were knocked out by 37mm fire from the M8 armored cars of the 1st Platoon at their road block near the canal bridge. At the same time another enemy vehicle, which appeared farther down the road to the southeast out of range of the 1st Platoon's guns, was disposed of by 37mm fire from an armored car in Troop Headquarters at a range of about 800 yards. The troop had no losses during this action.

The entire course of the march, which covered nearly 120 miles in slightly over 40 hours, ended on the outskirts of Tournai at 2000 September 2, 1944. One point is outstanding. Along the entire route the enemy did not once attempt to defend or delay in a town. All road blocks and other defensive positions encountered were either on the approaches to towns or on the far side of the towns. (It was noted that this general position of road blocks continued to the Siegfried Line.)

# ASSAULT GUNS




## As Attachments and in Battery

by Captain S. A. Lindsay*

Signal Corps Photo

**Assault guns support a reconnaissance unit on patrol near Blair, France, in the Lorient sector. Unit is not identified.**

### As Attachments

ON the morning of September 16 the 125th Cavalry Reconnaissance Squadron (Mecz) was detached from the 113th Cavalry Group, and again attached to the 30th Infantry Division. It was to protect the division right flank and at the same time maintain contact with the 1st Infantry Division on its right.

One platoon of assault guns from Troop E was to be attached to each reconnaissance troop. Meanwhile, the reserve assault gun platoon and one platoon of light tanks attached to the squadron were to precede the advance of squadron headquarters. As the squadron zone was quite narrow, the commander felt that if either of the reconnaissance troops ran into much trouble, this reserve force could be dispatched to their aid in an expeditious manner.

On September 17, it became evident that Troop A could use more support, so the reserve platoon of assault guns was sent to them, and only the light tanks were retained at squadron headquarters for security. By that time the entire troop was committed but each platoon was used in a different manner.

The 1st Platoon of assault guns, under 1st Lieutenant John F. Morrissey, was to support the advance of the 2d Platoon, Troop A, which had as its objective the seizing and holding of the village of Orsbach, Germany. The two platoons pushed off and immediately after putting foot on "holy German soil," ran into small-arms fire.

The reconnaissance platoon, under Lieutenant J. J. O'Donnell, quickly dispersed the enemy force but came under German artillery fire. Lieutenant O'Donnell then withdrew his platoon to a covered position and discussed the situation with the assault gun commander. It was decided that the reconnaissance platoon would renew its advance, while the assault guns would place counter fire on the enemy gun, correctly estimated to be

*Commanding Troop E, 125th Cavalry Reconnaissance Squadron (Mecz).

a self-propelled 75mm. As soon as the reconnaissance platoon started its forward movement it again came under fire of the enemy 75mm. The assault guns immediately opened up from a well defiladed position and, with a good idea of the enemy position derived from azimuth readings, fired 8 rounds each. Fire from the enemy ceased, and the entry into the town from that point forward was uneventful.

On reaching the village, the troops saw 9 Germans entering a house, so the assault guns were placed in a direct firing position, which changed the "Heinies" idea of putting up a fight. Before a round could be fired the enemy vacated the position and, altogether, over 20 Germans surrendered. The obvious presence of the assault guns perhaps helped them to make up their minds.

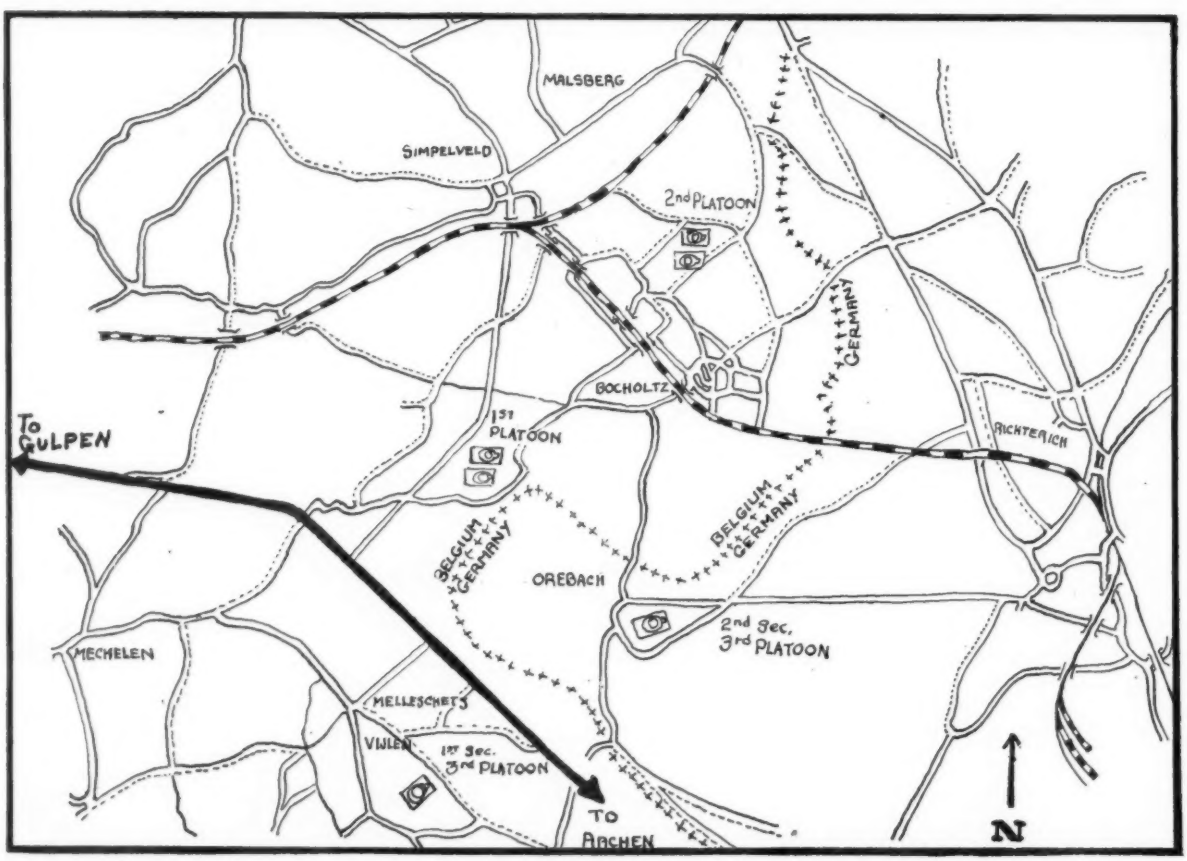
After this action the 1st Platoon assault guns were assigned two outposts on the west side of Orsbach, which they maintained until relieved by the 1st Platoon, Troop A and its assault gun attachment. The 1st Platoon assault guns then moved to Bocholtz and set up a defensive position opposite the Siegfried Line. Only one fire mission was fired by the platoon from this position and the results were successful.

The 3d Platoon assault guns, under Lieutenant M. E. Nichol, was also attached to Troop A. After firing approximately 200 rounds from the high ground at Vijlen, Holland, on Orsbach in support of 2d Platoon, Troop A, the assault guns were split and Sergeant G. L. Lynch with the second section was then attached to the 1st Platoon, Troop A, with the mission of taking over Orsbach from the 2d Platoon. Shortly after the change was made, enemy small-arms fire was received from the village church. Sergeant Lynch then maneuvered his assault gun into position and fired two rounds point blank into the church. Results were two enemy dead and two prisoners. This section was then used strictly as a road block because the 1st Platoon assault guns were in a position to deliver supporting fire from Bocholtz.

The first section of the 3d Platoon remained in position on the high ground at Vijlen and from its advantageous point was able to cover all movements of the reconnaissance platoon to which it was attached.

The 2d Platoon, attached to Troop C, initially was to establish road blocks as security for the troop CP, provide indirect fire support for the forward platoons, and be ready to move on a moments notice to either platoon for direct support.

On September 18, Captain Reuben F. Trant, Jr., Troop C commander, ordered the assault guns under Lieutenant Kenneth Scott, to take a firing position




Sketch 1.

along the high ground directly in the rear of the towns Horbach and Bocholz. The position selected not only offered support of the two platoons on the line but allowed the guns to cover a blind spot between them. (See Sketch 1.)

A number of missions were fired by the platoon and the Germans replied with counterbattery fire, but Lieutenant Scott had picked his position well and no casualties resulted. The platoon was credited with destroying one enemy armored car and many enemy soldiers.

Radio contact was maintained between the two reconnaissance platoons of Troop C and the assault gun platoon. Fire adjusted on targets by this method from forward observers with the reconnaissance platoons, obtained good results.

### The Troop in Battery

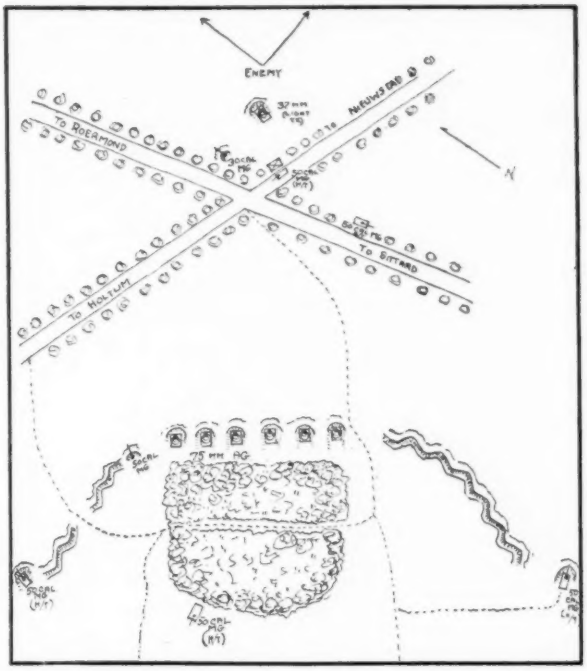
### October 1—November 3, 1944

The 125th Squadron was detached from the 30th Infantry Division on September 30, and, again under the 113th Cavalry Group was to hold a defensive line from Millen, Germany to Roosteren, Holland. On the squadron's right was the 744th Light Tank Battalion and to the battalion's right the 113th Cavalry Reconnaissance Squadron—all on the line and all under the 113th Cavalry Group. The plan was to hold the line with two reconnaissance troops and their attached assault guns, but after the first day Lieutenant Colonel Kleitz decided to use the guns as a unit. This plan was enthusiastically received because, except for one brief fire mission during its first action, the assault gun troop had not been used as a unit since it landed in France. There was much interest in what it could do as a battery.

The Troop E platoons were informed of the change and told to assemble in the troop area. While this move was taking place 1st Sergeant C. T. Kalaher and I made a personal reconnaissance to select a position that would permit the guns to cover the entire front held by the reconnaissance troops. The following 5 points had to be considered:

1. The position must be as close to the center of the sector as possible.
2. Forward observation points were required to allow as much observation of enemy-held ground as possible.
3. Concealment for the firing position was necessary as guns were to be placed well forward.
4. Routes of communication, accessible for ammunition and all supplies, had to be found. Two or more routes to and from the area were desired.
5. Alternate positions needed to be selected and prepared for immediate use.

The desired position was soon found about ½ mile west of the town of Neiuwstad, Holland. The troop was then contacted and ordered to move to the location by platoons, with a 20-minute interval between platoons




**Sketch 2.**

in order to hold movement to a minimum while reaching the position. As the guns were brought up they were placed in front of a small patch of woods with only 20-yard intervals to allow all guns the protection of concealment which the trees afforded as a background. (see Sketch 2.) Later the guns were dug in by the use of a bulldozer. This increased the value of their positions since their type of military target could not be determined even from very short ranges. Two alternate positions were selected and gun pits also dug not far from the main position.

### Defense of Area

Since the extensive squadron front had only two reconnaissance troops and one light tank company to cover it, stringent measures had to be taken for the local defense of the assault gun area. Trenches for dismounted personnel were dug to provide for all-around defense. Three half-tracks mounting .50 caliber machine guns were placed to protect the flanks and rear. An outpost, consisting of a light tank and two half-tracks, was put in position 300 yards out in front of the troop. Its purpose was twofold: to complete the defense scheme of the troop, and to cover a blind spot in the squadron sector.

### Communications

Because of previous missions in which the radio had not always been reliable, telephone communications were set up from the troop fire direction center to the forward observation, outpost, and to the guns. Two separate wires were run to the FO so that if one was

knocked out the other could be used. A 510 radio was also maintained at the FO to be used if both wires were knocked out. This plan proved its worth during the 34-day stay in this position and only once was it necessary to switch to radio communications with the troop FO.

October 11, Lieutenant G. R. Murphy, (then Sergeant), of Troop C, observed enemy digging in around a bridge and requested fire on the area. Results were very good, and enemy activity in the area was not resumed. This incident indicated the observer's proficiency in directing fire, for after three rounds the order, "Fire for effect," was heard.

### Coördination with Supporting Artillery

During most of this period the 283d Field Artillery Battalion was in direct support of the 125th Squadron. Because of the necessary rationing of ammunition the assault guns coördinated their efforts with the battalion and assumed much of the artillery's night harassing fire. Another means of conserving ammunition was effected by close coördination between the assault gun observer and the artillery observer, who occupied the same OP with fire on the same base point. Once the assault guns were registered, the data was passed to the artillery battalion's fire direction center. The artillery battalion also surveyed in the assault guns with the obvious advantage that the artillery observers were able to fire the assault guns through their fire direction center, which they frequently did with excellent results. Through the joint use of the artillery's fire direction center for firing both artillery and assault guns, more effective fires were delivered. In addition, a close coördination developed among the FO's with a resultant general saving of ammunition.

### Combat Tips

During the squadron's lengthy stay in this area, the enemy at no time located the assault gun position. This is believed due to the following reasons:

1. The guns close proximity to the enemy lines (many missions fired at 1,200 yards with reduced charges) seemed to mislead the enemy a sto exact location.
2. Careful use and continual checking of camouflage.
3. Immediate destruction of all likely enemy OP's, such as the church steeple in Havert, Germany, which was held by enemy forces.

In similar missions since, the same tactics have produced the same excellent results.

In preparing cavalry units for combat, more emphasis should be placed on closer coördination between reconnaissance platoons or smaller elements and the assault guns. Each reconnaissance section should have at least one man experienced in adjusting indirect assault gunfire. Squadron adjustment should be standardized by "sensing" or by calling corrections, whichever is preferred by the CO of the assault gun troop. Time is saved and confusion is eliminated by this practice.

# A Raid
## by 3d Platoon, 104th Reconnaissance Troop (Mecz.)

*by Captain Arthur S. Laundon**

ON January 16, 104th Reconnaissance Troop was given a mission on the southern boundary of the division zone. The troop was allowed one week to prepare for the raid and was to be permitted to make the raid any time during that period. The raid was to be of platoon size conducted by the 3d Platoon under 2d Lieutenant Charles J. O'Gara. There were 4 steps involved in the raid: (1) Prior reconnaissance. (2) The plan. (3) Preparation. (4) Execution.

### Prior Reconnaissance

On January 17, Captain Laundon, commander of the 104th Reconnaissance Troop, and Lieutenant O'Gara went to the OP at Birgel to select the most suitable crossing.

From observation, the southern edge of Lendersdorf-Krauthausen appeared most favorable for a crossing. Lieutenant O'Gara then moved his platoon to the vicinity of Birgel and selected a good OP which covered the area of operations in the southern end of the town. On the night of January 19, his platoon was moved into town where continuous observation of the area was available.

During this period all available information on the terrain and enemy in that vicinity was gathered and checked. Twice Lieutenant O'Gara, accompanying reconnaissance patrols of an infantry battalion, reconnoitered the area where the patrol intended to operate. On one occasion he observed small-arms fire in the vicinity of the object and on another occasion there was reported machine-gun fire in the same area. On the day of January 22 considerable activity was observed in the trenches near and around the objective. The activity continued throughout the day and into the night. It was then that the area in question was definitely decided upon as the objective of the raid.

During this period of reconnaissance every member of the patrol was completely oriented and given ample opportunity to observe the objective and the routes over the terrain through the river to the objective. The ground also was studied minutely in conjunction with vertical and oblique aerial photographs.

### The Plan

The patrol was to be broken up into three groups of 6 men each. One group was to be the base of fire

*Commander, 104th Cavalry Reconnaissance Troop.

and the other two groups, the maneuvering party. The base of fire was to move from the IP (initial point) (see sketch) to a railroad embankment near the river from which fire could be brought on any target across the river.

Corporal Capone, leader of the base of fire, carried a 536 radio. The two maneuvering parties were to continue across the river in a continuous line of skirmishers which was formed as they left the railroad track on the west bank of the Roer. They were to continue as rapidly as possible across the river, up the east bank of the river and into the trenches covering approximately a 50-yard front. At the completion of the mission or at the end of a 30-minute period the patrol was to return upon a voice command from Lieutenant O'Gara; while returning the patrol would use the north route.

One man was to be left in the OP with the artillery forward observer. This man would be in communication with the 536 radio carried by the base of fire as well as with the battalion CP by sound power telephone. The field officer, Lieutenant Strasser, was also in communication with the battalion CP by radio and by telephone. In addition, there was to be an open wire from the battalion CP to the fire direction center of the artillery battalion; also, a sound power telephone communication to the heavy weapons company operating the heavy machine gun and to the 81mm mortars. The 60mm mortar squad would operate from this same line.

Fire Plan:

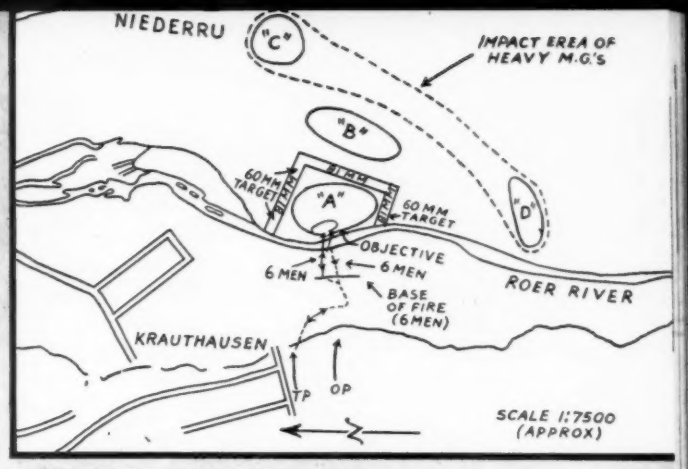
"X" F.A. Battalion, 105mm howitzers.
- Group A: H-3 minutes to H Battalion, 2 rounds per minute per gun.
- Group B: H to lift on call. Two batteries, 2 rounds per minute per gun.
- Group D: H to lift on call. One battery, 2 rounds per minute per gun.

"Y" F.A. Battalion, 1 battery, 155mm howitzers.
- Group C: H to lift on call. One battery 2 rounds per minute per gun.
- 81mm mortars: H-3 minutes to lift on call or when 100 rounds were expended.
- 60mm mortars: H-3 minutes to lift on call.
- Heavy machine gun: H-3 minutes to lift on call.

## Preparation

Each man of the patrol was given minute instructions regarding his duties, his route, and his individual and coöperative part in the plan. From January 20-24 every man made a continuous study, both from the OP and from the aerial photos, of the ground over which he was to travel. On the afternoon of the 23d, Lieutenant O'Gara personally adjusted the artillery and mortar fire so that he would know exactly where it was to fall. The FO was present with Lieutenant O'Gara so that he too would know where the artillery was to fall and if necessary make adjustments during the raid.

Except for Tommy guns and the amount of ammunition and grenades to be carried, the choice of equipment was left to individuals. Nine Tommy guns and three carbines were to be carried by the maneuvering force, while the base of fire would carry M1 rifles.




Up to the last minute all plans were checked and rechecked; all communications were checked as late as 14 minutes before H hour. Sixteen men wore snow suits and two men wore regular uniforms. All wore steel helmets, but no web equipment was carried. The Tommy gunners carried 90 rounds; carbine gunners, 75 rounds; and riflemen, 88 rounds of ammunition.

## Execution

H hour was set for 2000 January 24. All watches were synchronized and fire plans went off as scheduled. Given the "all clear" signal Lieutenant O'Gara started from the IP; the base-of-fire party moved to position as planned; and immediately after the two maneuver groups moved along the selected routes to the east bank of the Roer River. Except for one friendly trip flare, set off by a member of the base-of-fire party, no unexpected obstacles were encountered. All men of the maneuvering party reached the trench system on the opposite bank at the same time. Staff Sergeant Hahn and T/5 Gilchrist found an enemy machine gun and its crew of 3 men lying in the trench with the machine gun unmanned. After being kicked, two of the enemy raised their hands and surrendered. The 3d man started to commit a hostile act and was disposed of. Meanwhile, Lieutenant O'Gara and Sergeant Simmons found another enemy lying in the trench and pulled him out. When the command was given to return to the IP, all members of the patrol returned safely and were reported back by 2016. About 2040 the enemy reacted with light harassing mortar fire. The patrol received no hostile fire during the entire period.

## Conclusion

Success of the patrol was due to thorough prior reconnaissance, complete planning, excellent leadership, and bold aggressive action by every member of the patrol. Because of the moonlight every man was able to see to move quickly and surely. From observation it was noticed that the camouflage suits had little advantage over the regular uniform, as all men were silhouetted against the white background of snow.

# Ammunition Supply During Rapid Movement in Combat

*by Lieutenant Colonel Herbert F. Krucker, Cavalry**

Comments

A RECENT article in THE CAVALRY JOURNAL described the fighting march or "blitz across France" by the 4th Armored Division.

It is felt that a description of the system of ammunition resupply within the division in an operation of this length and distance might be of interest.

Prior to departure from the camps in England for the marshalling area, the entire basic load of ammunition was drawn. This was the combat load covering the total amount of ammunition that the division could carry and was broken down to that carried by the individual and that carried on each and every vehicle within the division. The basic load was full and complete and had been worked out to allow the maximum that could be carried. The ammunition was issued to each individual, and the vehicular load to each driver upon departure for the marshalling area.

The principal of resupply was very simple in statement, to wit: Keep a full basic load at all times. This was not hard in Normandy when the line was relatively stable and the class V dump was close by, but it was obvious that when a breakthrough occurred or any extended move forward was made the problem of resupply would put a terrific burden on the battalion ammunition sections.

To eliminate this problem an attached quartermaster truck company was assigned to the division ammunition officer. The truck company was loaded with a representative load based on experience, and a division ammunition dump was established. This dump or resupply point was placed well forward and kept mobile at all times. Elements of the Division would send their trucks the short trip to this dump and secure refill without delay. Empty trucks were dispatched at once to the Army dump for immediate resupply, so the load was kept constant.

During rapid forward movement army class V dumps were often as far as 40 to 80 miles in rear of the division. The relief afforded to the battalion ammunition train can be seen at once. One instance is recalled where the ammunition trucks returned to a dump 80 miles in the rear only to find the type of ammunition required was still back at the next dump and the trucks went on back another 60 miles—a round trip of 280 miles.

Occasionally, a task force or combat team would be assigned a special or isolated mission which would take it some distance away from the remainder of the division. At such times, trucks attached directly to the task force furnished it with a reserve of all types of ammunition needed. The trucks would be returned when empty or when the task was completed.

Through this system ammunition was made available at all times without undue burden on the battalion ammunition sections; further, it was possible to assist in the ammunition supply of all attached units including 155mm artillery battalions which were often with the division.

**An assault gun (75mm Howitzer, M-8) shells enemy positions in Geislaurten, Germany, February 8, 1945. This gun belongs to Troop E, 106th Cavalry Reconnaissance Squadron, which crossed France with General Patton's Third Army. Note quantity of empty shell cases at side-front.**

Signal Corps Photo

# ...ts from Combat

The system was particularly helpful to the attached antiaircraft battalion. Its batteries were divided among various elements of the division scattered over a wide area, and without a division dump, ammunition supply to this unit would have been particularly troublesome.

The amount of ammunition available at the resupply point was greatly increased by overloading the trucks and trailers used. One hundred percent overloading was normal, but the boys usually stacked on a few "extras," and while some might not agree with this principle of overloading, it got the job done. It might be related that during the entire battle of France, no ill effects from overloading trucks were noted by the writer.

Operation of the resupply point was in no way complicated. The batalion ammunition officer with the battalion trucks stopped at the DAO and requested all ammunition needed to bring the basic load up to normal or "full." Notations were made and issue slips or ammunition orders issued and the drivers directed to the trucks containing that type. In a very short time the trucks were reloaded and on their way to the front, and any empty trucks in the ammunition section were dispatched to the rear to secure needed types.

Extended advances made by an armored division could not be supported without the attachment of quartermaster truck companies to the present type armored division.

* * *

## Forward Observation Training

### --Notes from 106th Cavalry

The importance of artillery in present day warfare cannot be underestimated. A bulk of the casualties are caused by artillery.

Since reconnaissance units are well forward of the main body of troops, with the best available OP's, they often find targets for artillery that many times cannot be reached by the organic direct fire weapons of the cavalry. Lessons learned in combat prove that a closer liaison between cavalry and artillery, similar to that of the infantry-artillery team, is needed.

Frequently a field artillery battalion or group is attached to a cavalry group for direct support. Although in this arrangement, FO's are included, there are not enough FO's available to cover the wide sectors assigned to the cavalry. In addition, local actions encountered by isolated platoons cannot be covered by the field artillery forward observers.

Communications by use of the organic cavalry radios is adequate. The assault guns can furnish accurate, effective indirect fire. The "weak link" in the chain, is often the forward observer. Cavalry reconnaissance troops, therefore, can well afford to spend time in *teaching forward observation by artillery methods.*

Men must be trained to adjust the fire onto the target, trained to know *how* to do the most damage to the enemy with a minimum expenditure of ammunition, trained to know *what* targets require which type of fire, and *when* surprise fire is most effective.

In a situation where the cavalry sections are spread out, it is not always possible for the platoon officer to call the artillery fire. Consequently, enlisted men should have the same amount of training as officers; every man in a reconnaissance platoon should be able to call for and adjust quick, accurate artillery fire on targets of opportunity. To be practical, this training should include a knowledge of the principles of forward observation as laid down in FM 6-135, and a thorough practical experience with the use of the Troop E assault guns.

Specific instances of the need of this training were often encountered by the 106th Cavalry during operations in Normandy, northern France, and Germany.

August, 1944:

"On the fast-moving drive after the breakout of Normandy, cavalry troops advancing ahead of the main body of General Patton's Third Army met small delaying enemy forces on all routes to Paris. Normally, these consisted of an 88mm antitank gun augmented by a 20mm Flak gun and a force of possibly 50-100 infantry for close-in security. These routes had to be cleared for the advance. The enemy antitank gun was normally positioned with at least a 2,000-yard range. The cavalry assault guns, leap-frogging forward in pairs in support of a reconnaissance troop, proved invaluable as indirect fire artillery. High ground, high buildings, and occasionally second-story windows were used for observation posts, while dismounted men moved forward to reduce the delaying force."

November, 1944:

"In the Foret de Parroy, when the cavalry group dismounted and fought as infantry, the assault guns again proved their worth as artillery. Observation was normally limited to not more than 200 yards. Observation patrols equipped with SCR 510s moved in close to the enemy positions and called artillery fire—an invaluable aid in the slow, grim job of grinding down a well dug-in enemy."

December, 1944:

"In one instance near Drulingen, France, a reconnaissance platoon leader and section sergeant at an advance cavalry observation post performed forward observation for corps artillery. Their proficiency in calling quick effective artillery fire was instrumental in the destruction of an enemy tank-infantry column threatening the corps flank."

January, 1945:

"When the Seventh Army was fighting near the Saar River, cavalry sections on outpost duty bore the brunt of the forward observation for two field artillery battalions plus a 4.2 chemical mortar battalion, attached to the cavalry group. In many instances casualties were inflicted on enemy long-range targets which could not have been reached by direct fire."

**Smoke, dust, and dirt rise over enemy town of Wehrden as American artillery barrage sends fury of steel and fire into Nazi positions. Thirty rounds of 155mm shells were poured on target in given period of time. Note shellhole in foreground building from earlier shelling. This picture was made with Troop B, 106th Cavalry Reconnaissance Squadron, 106th Cavalry Group, December 29, 1944.**
Signal Corps Photo

# The Enlisted Man In Operations Section

*by Technical Sergeant J. C. Radanovich**

WHEN we began operations in France in the early part of August, I fully expected grave problems and new situations to beset us. Truthfully, in that zero hour before the first enemy engagement, I had seemingly forgotten everything that I knew and wondered whether I had ever known anything.

However, with that first mission and the first reports of enemy encounter coming in over the ether, my confidence began its slow but steady return, and old situations and solutions, proven on maneuvers and in the book, took their proper place in the scheme of things.

To reiterate only what countless others have said before: *Maneuvers are the culmination of the training of the present-day soldier, and of the utmost necessity to a well balanced and rounded-out program. Maneuvers can well be classed as the entrance examinations to the college of actual war.*

The enlisted personnel of any operations section, be it battalion or squadron, regiment or division, must be trained with rigid adherence to eventual battle participation. In fact, the best average of common intelligence and knowledge (rated not so much for schooling as for plenty of common horse sense) is essential to a well balanced, smoothly functioning operations section. I speak purely from the standpoint of the enlisted man.

The entire section should be so balanced as to be able to operate on a mental level with the staff officers in the unit. In other words, the ideal operations section should be able to grasp situations quickly and, in that moment of decision, be able to correlate actions along that same chain of events in such a manner as to necessitate a minimum of time to direct labor into the proper channels.

Now we're set up for business. At this point maneuvers are far behind, and we are engaged in actual conflict with the enemy. Maneuvers, however, play an important rôle in the molding of the operations section. Suffice it to say that a unit is almost bound unto itself to go into combat with the same operations section as was used on maneuvers. The men should know each other well, know each others faults and weaknesses, the strong points and the idiosyncrasies of the staff officers.

Neither personnel nor procedure in the operations section should be changed *after* maneuvers and prior to battle, *unless* the substitutes have already proven their ability on maneuvers. If a change must be made the

*3d Cavalry Reconnaissance Squadron (Mecz.).

new personnel should be given a chance to get acquainted, to learn about the organization, to know the staff officers. It will pay dividends later.

Normally, the operations section must, of necessity, be considered a separate entity—not to be tampered with by the troop commander, or the 1st sergeant. It is strictly the unit CO's and the S-3's "baby."

The operations personnel must have loyalty to the S-3 and the commanding officer. This is doubly important because of the secret, potential dynamite packed into the small files and on the maps in the section. Secondly, from the very first day of operations, be it in combat or the pseudo-war of maneuvers, the attachment is almost as close together as a family. The men work and live and must be together continually. They share the same vehicle, the same blackout tent, the same dugout. Sometimes they work on the same map or overlay at the same time—even share the same C or K rations.

Ability to handle routine functions in the rare absence of the S-3, the Ex O, and the CO is desired. It is an unusual occurrence when all three of these officers are away from the CP, but the occasion can arise—and does—and a thorough acquaintanceship with the policies and desires of these three staff officers is an added advantage. Ability to write a clear and straightforward message, and a working knowledge of the message center is necessary.

A fundamental knowledge of map reading and sketch-making is imperative. The present methods of teaching map reading to the enlisted man leaves much to be desired. In usual instances the average soldier garners nothing more than the ability to read coördinates, pick out streams and hills on a map, and read the scale. The average soldier should be able to tell at a glance, for example, the exact height of a hill on his map, picture it in his mind, see the angle of slope and readily be able to put the hill on paper without "sweating." It is hoped that a thorough map reading course will be devised and included in future training.

As long as the operations section does not usually see the area of battle while it is in progress, a better-than-rudimentary map reading ability is necessary.

To be a capable operations sergeant or assistant in the S-3 section a knowledge of maps and map reading are not the only prerequisites. Fundamentally, the enlisted man in the operations section should be able to read a map, know the symbols, and know how to make a neat overlay. He must be able to keep a journal of events, of incoming and outgoing messages. He must be able to write a clear, concise message with ease and speed, and should be able to write a distinct, correct periodic report; typing ability is an asset. He must be able to keep his wits, maintain his sense of humor, and have an endless supply of patience.

The normal business of the CP in a cavalry reconnaissance squadron results in long, tiresome hours for the S-3 and his aides. But the smart squadron S-3 will incorporate the S-2 and S-3 sections into one "operations" section. The S-2 then becomes an assistant S-3, the S-2 sergeant becomes a second operations sergeant, and the operations clerk will also be developed into an embryo operations sergeant.

The S-3 will then have at his disposal three operations sergeants and a clerk draftsman. In no time at all the combination will result in a smooth, efficient, fluid operating section where each enlisted man can do the work of the others. Tours of duty can be staggered, too, for the simple, but important matter of rest.

This is how this particular section operates: Numbering the three sergeants 1, 2 and 3, the schedule begins from scratch. Number 1 comes on duty at 0800 and works straight through to 1800. Then Number 2 comes in and works until 2400. He is relieved by Number 1 then, who works until 0800 the following morning. At 0800 Number 3 comes on until he is relieved by Number 1 at 1800. Number 1 is relieved at 2400 by Number 3 who works until relieved by Number 2 at 0800. This circle continues without strain on anyone of the group, and the men in the organization are sold on the plan.

At mealtimes, the draftsman eats early and is always present in the CP while the operations sergeant is eating. Under this system it is a practice never to have the draftsman work during the night, if it can be avoided. His tour of active duty is from breakfast to supper each day.

*Summary:* In actual combat the operations section must have in its possession the proper map or maps, grease pencils, overlay paper, lead pencils, a map scale, a map measurer, a protractor, reading glass, message books, journal forms, sufficient paper and carbon paper for reports, a typewriter, plus any few assorted oddments which are specially favored. Enlisted personnel should know the officers with whom they are working and fall in step with them. It must be remembered that liaison is maintained by the lower unit to the higher. Lastly, men must *keep their wits and their sense of humor.*

As was true in the case of many units during the summer campaign through France, most of the "operating" of this section was done from inside the ring-mount of its half-track. Stops were made only at night, and the furious pace of incoming or outgoing messages, and changing positions on the map, went on endlessly in the blackout tent throughout the night.

On occasion, the operations section will have to fight its way through an enemy-held town or sector. Until mid-September, when this unit went into a static position on the line in assigned sectors, its work was done on the run, but without missing a single journal entry, without missing a single daily periodic report, with no loss of personnel in the section during brushes with the enemy or from artillery barrages. Through every type of enemy action engaged in by the unit, in all kinds of

weather (which in France was mostly rain in September, October and November) the section, under the setup outlined here, was as efficient and smoothly run as though it were factory-made and labeled "Operations Section, Grade AAA."

* * *

# Cavalry Communications in Combat

## by Sergeant Robert F. McCarthy*

AS a whole the communications training received in States, and equipment authorized for this branch have been very efficient. However, 7 continuous months of front line combat operations have demonstrated in practical experience many things inadvertently omitted during the training period. These criticisms, intended only to be constructive, are presented for the benefit of other units.

### Radio Operators

The foremost barriers that operators had to contend with in the drive across France and into Germany were terrific interference and enemy jamming. Yet, in the communications schools in the United States, only a comparatively short period was devoted to taking code through heavy interference and simulated battle noises. Much more training should be given radio operators under these undesirable conditions. It is absolutely necessary that operators be able to read their own stations weak signal in the background and *to copy swiftly and accurately the first time.*

Quite justifiably, stress has been placed on the tuning of AM sets by the operators. However, they should be equally capable of manually tuning FM sets. Too much emphasis cannot be placed on this phase of an operators' training.

*To summarize:*

1. *More stress must be given to the training of radio operators under simulated battle conditions.*
2. *Each operator must be taught to tune his FM set manually, as well as his AM.*

### Message Center

This unit has found it advantageous to have, as one of its message center clerks, a former radio operator who understands the Morse Code. It is easy for the receiving operator to mistake an S for an H, a W for a J, a C for a Y, etc., and the clerk's knowledge will enable him to interpret these errors when the decoded message fails to make sense. This oftentimes eliminates the necessity of a repeat on the message. A clerk who understands the Morse Code is invaluable.

Many times, the message center personnel is called upon to operate the telephone switchboard which has been installed in the message center. At least a week's switchboard training should be given to message center personnel before embarking overseas.

*To summarize:*

1. *A clerk who understands the Morse Code is invaluable in expediting the handling of messages.*
2. *Message Center personnel should know how to operate a switchboard.*

### Messengers

The ability to read maps is a prime requisite of a mounted messenger. In combat the individual troops are invariably separated, and it is imperative that a messenger be able to read a map correctly in order to maintain contact with these units.

Before leaving the States the communication officer should know which messengers can drive at night and which cannot. It has been definitely established in this squadron that some men cannot drive at night no matter how many vitamin pills or how much carrot juice they consume. More attention should be paid to this phase of driver examination.

Mounted messengers frequently run into difficulty, and their vehicles should be equipped with a 510 radio so as to maintain communications with their units.

*To summarize:*

1. *Mounted messengers should receive more training in map reading.*
2. *Training now given in blackout driving is not sufficient; it must be increased.*
3. *Each messenger vehicle should have a 510 radio.*

### Tables of Organization and Maintenance

All of these measures would be meaningless without the proper maintenance of communications equipment and unfortunately the T/O of a cavalry squadron does not fulfill the demands placed upon the communications section. In spite of the huge number of authorized radios in a cavalry squadron and the prodigious job of maintenance on these sets, a cavalry squadron is not authorized a specially equipped maintenance vehicle. Were it not for the fact that radio technicians in this squadron constructed a portable shop of their own in a 2½-ton truck, the communication system would never have operated so efficiently. With this arrangement it has been possible for the unit to repair a majority of its own sets in the self-constructed shop-truck, and few occasions have arisen when it was necessary to send damaged sets to a signal depot for repair. Thus valuable hours have been saved, and communications have been disrupted for a minimum length of time only.

The radio maintenance vehicle is kept at all times in the forward echelon of squadron headquarters. This

*Radio Operator, 3d Cavalry Reconnaissance Squadron.

makes it easily available to all troops which must use its facilities.

All authorized radios are constantly in use and not one is classed as a spare. One extra radio of every type used within the squadron should be authorized and carried in reserve. Then when a set came in for repair, the reserve radio could be issued in its place, communications immediately reëstablished and the inoperative set repaired without loss of efficiency.

All too frequently delays have been suffered in the repair of equipment because the necessary spare parts have not been issued. This has resulted in trips to the signal depot far in the rear. If sufficient repair parts were issued to a cavalry squadron, squadron technicians could do fourth echelon maintenance and valuable time would thus be saved.

It was found necessary to install 528 series radios in the bantams of the squadron CO and troop commanders. To accomplish this the vehicles' electrical system had to be changed from 6 to 12 volts. There would be a distinct advantage in having a 12-volt system originally in all bantams designated for unit commanders' use.

Quite frequently, a cavalry squadron has an artillery unit attached. Because of this, the squadron should be issued a 608 series radio for contact with the artillery. The 608 radio, which this squadron fortunately procured, has been a valuable addition in this respect.

The 536 walkie-talkie radio is invaluable for patrol work, although it still is not authorized to a cavalry squadron. At least 12 of this series should be allotted.

During the lightning-like drive across France, radio was the sole means of communication. Now that this unit is in Germany (incidentally, the 3d Cavalry was the first unit of the Third Army to cross into Germany) positions are comparatively stable, and telephones are used as a dual means of communications.

The wire equipment now used by this unit represents an international collection. There are three French, two Polish, one German and one American BD 72 switchboards. Telephones are of the same variety as the boards and, since wire is not authorized to a cavalry squadron, it is obtained by any means possible. Because of this captured equipment the communication system is considered unique; nevertheless, it has produced almost constant and perfect communications.

Each cavalry squadron should be issued one BD 72 switchboard for squadron headquarters, plus one BD 71 for each of the troop headquarters. Naturally, a sufficient number of phones and an ample supply of wire should be included. Consistent with this, designated men should be trained to operate efficiently the various switchboards, and others trained as wire crews to repair broken lines. Wire maintenance requires special equipment, and experience has shown that one PL 31 should be issued per troop to handle a mile of wire on a DR 5, and an RL 27 hand axle to facilitate the laying of ½ mile of wire on a DR 4.

A German portable electrical power unit has been used extensively to furnish a lighting system. It has also enabled the unit to use several civilian type radios, which increase the morale of the men immeasurably. It is recommended that a cavalry squadron be issued a 110 watt 60 cycle AC power plant, as it is one of the most valuable of assets.

*To summarize:*

1. *A specially fitted radio maintenance truck, preferably on M-7 small-arms truck, should be an authorized item of a cavalry squadron.*

2. *Radio maintenance vehicle should be kept in the forward echelon.*

3. *One reserve radio of each type used in the squadron should be issued and carried in the maintenance vehicle.*

4. *Sufficient spare parts should be issued to allow damaged sets to be repaired on the spot by the squadron technicians.*

5. *If practical, each unit commander's bantam should be equipped with a 12-volt system and have a 528 radio installed.*

6. *One 608 radio is necessary for communication with attached artillery units.*

7. *At least 12 walkie-talkie sets (536) could be used for patrol work.*

8. *One BD 72 switchboard, plus necessary phones and wire, would be desirable for squadron headquarters.*

9. *Designated men should be trained to operate switchboards and to act as wire crews.*

10. *One RL 31, as well as one RL 27, should be authorized for each troop for wire work.*

11. *A 110 volt 60 cycle AC power plant would be a valuable asset.*

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# From Normandy to Germany

## With the 3d Armored Division

Signal Corps Photo

**Tanks of the 3d Armored Division fire at German positions in Belgium. Note mountain in background; also snow.**

### Bocage Country Fighting

THE 3d Armored Division's initial action was in the hedge-bound Norman countryside before St. Lô —country not ideal for armored operations. Although apparently the last place in the world for tanks, the 3d was called upon to help reduce a salient east of the Vire River protecting Villiers Fossard.

To Brigadier-General Doyle O. Hickey's Combat Command A was given the assignment of clearing the pocket held largely by the German Fusilier Battalion, 353d Infantry Division. To accomplish this mission, CC Hickey was given the 32d Armored Regiment, the 36th Armored Infantry Regiment, the 54th Armored Field Artillery Battalion, supporting engineers, medics and maintenance elements.

Three task forces were formed—X under Colonel (now Brigadier General) Truman E. Boudinot, Y commanded by Colonel Graeme G. Parks, and Z commanded by Lieutenant Colonel Walter Abney. In this and subsequent actions, two task forces mounted the attack, and a third (in this case that of Lieutenant Colonel Abney) remained principally in reserve. Later, when the division began to shake down to a more perfectly coördinated fighting machine, multiple spearheads of task forces were used in the division's assault.

The attack from Normandy jumped off at 0900 on June 29, and by 1130, Task Force Boudinot had reached LaFarge-Bois de Bretel, where it was ordered to remain. Enemy resistance was stiff; the terrain favored the German bazooka teams. Task Force Parks, reaching a stream north of Villiers Fossard and the right flank of the force, was held up by difficult terrain and frantic enemy resistance.

On the following day both task forces pressed on, stabilized the line, and turned it over to the 29th Infantry Division. The Villiers Fossard bulge was dented, but the 3d Armored Division had suffered relatively heavy casualties.

Bocage country fighting was bitter; each hedge had to be breached before armor could pass. Because it was impossible to requisition enough versatile tank-dozers, division engineers designed their own. The Maintenance Battalion constructed an arrangement which

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Compiled from a pamphlet, "Call Me Spearhead," issued by *Stars and Stripes*, a publication of the Information and Education Division, Special and Information Services.

could be fitted on light or medium tanks. Battle experience and ingenuity welded the division into a crack fighting unit.

CC Hickey was ordered to an area north of the Foret de Cerisy, prepared to counter any penetration on the V Corps front. It was never committed, and on July 7 it was ordered to move across the Vire River at Airel to occupy a bridgehead secured by the 30th Infantry Division, then to advance southward toward St. Giles. That night troops of CC B (Brigadier General John J. Bohn) raced across the Airel bridge under a hell of German artillery fire. Division MP's, disregarding the vicious barrage, clung to their posts directing traffic over the hastily reconstructed bridge.

### Across the Vire

Fanning out across the Vire, CC Bohn was attached to the 30th Infantry Division, while CC Hickey on the corps right flank, was to attack in the direction of Les Lendes and Le Perry. At midnight of the 8th this combat command was attached to the 9th Infantry Division—a combination that happily was to continue throughout much of the campaign in the west.

On July 15, Colonel Truman E. Boudinot assumed command of CC B, which was to take a hill called Haute Vents. Colonel Dorrance Roysdon, commander of the 33d Armored Regiment, delegated the mission to Lieutenant Colonel Rosewell H. King. Because of heavy losses in previous action, Lieutenant Colonel King was able to muster only two light and 6 medium tanks. With his radio shot out and his infantrymen unable to maintain the rapid advance, Colonel King nevertheless proceeded to Hill 91, or Haute Vents, and the next morning returned to his lines for infantry support. Under heavy enemy shelling CC Boudinot held out for three days until finally contacted by advance elements of the 30th Infantry Division. Colonel Roysdon and his small band held Haute Vents and defeated the abortive attempt of the German 130th Panzer Lehr Division's powerful drive toward Isigny in its effort to cut off Allied forces on the new beachhead. The German division, in spite of its reputedly magnificent equippage, took a terrible beating in the Haute Vents, Pont Hebert, and Belle Lande sectors.

### The Breakthrough

The great armored breakthrough from Normandy into France was the first true showing of American ground power in battle. In the morning hours of July 26, wave after wave of Fortresses and Liberators made the initial assault. There were probably more planes in the air at one time than ever before in the history of air-ground operations. They came endlessly over the horizon, dropped their bombs, and winged away. It seemed impossible for any living thing to survive that raging torrent of explosives. No one could guess the extent of the proposed breakthrough, but orders were given, and teams moved out—multiple columns of armor leading.

In the initial stages of the breakthrough west of St. Lô, CC Boudinot spearheaded the attack of the 1st Infantry Division at Marigny, then made a right turn and drove for the high ground around Montuchon, northeast of Coutances and behind enemy lines. After taking its initial objective, it clattered to within sight of Coutances, but at that time an order was received to turn back and aid the 1st Division to reduce a strong point.

When the combat command had turned west of Marigny, B Battery of the 391st Armored Field Artillery Battalion was firing support. When the 4th Cavalry Squadron ran into serious trouble with the enemy a few hundred yards away, command of the battery was turned over to a single noncom, and all available personnel was used as infantry against the Germans. Five of the battery's six guns were used for support while the sixth was fired point-blank at the hemmed-in Germans.

Activity encountered by units normally in rear areas is described in the annals of the 486th Antiaircraft Battalion, an attached unit: "From 0030 to 0105 hours the area around the division CP was heavily attacked by enemy aircraft. Flares were dropped directly over the CP and bombs fell throughout the area. No damage or casualties. During this night the battery commander, Captain Phillip Shaw, with 4 or 5 enlisted men destroyed an enemy tank, several half-tracks, volkswagons, and numerous ammunition and gasoline trucks, killed two enemy soldiers and captured 9. One of the enemy,

**Viewing their conquest from the rubble littered steps of Cologne Cathedral, Germany, are Major General Maurice Rose, commander, 3d Armored Division, and Brigadier Generals Doyle O. Hickey and Truman E. Boudinot, who led their Combat Commands across France. March 15.**

attacked by an American soldier wielding a hatchet, shouted 'Heil Hitler' and shot himself to death."

In the meantime, CC Hickey had been given the mission of taking Cerisy la Salle, Montpinchon, and the high ground to the east and southeast of Coutances.

Because the enemy had expected such an attack, CC Hickey encountered more opposition than had Boudinot but, with the help of other armored columns to the east and west, forced German armor beyond Roncey.

At this point the 2d Armored Division cut the escape gap at St. Denis le Gast while the air forces pummelled the road-bound Nazi vehicles.

From an operational standpoint, it was a combat command "show." This was illustrated by the action of CC Hickey, which, on July 29, was ordered to turn south and seize a crossing of the Seine River at Gavray. Lieutenant Colonel L. L. Doan led his troops across the stream on foot under fire to secure a bridgehead. So fast was the advance that at Brecey, the speeding combat command caught German troops lolling under the trees, drinking wine!

CC Boudinot, attached to the 4th Infantry Division, attacked on August 1 to take the high ground east of Villedieu les Poeles. It received strong opposition and was ordered to cross the See River and move south and east to hold a crossroad at Le Mesnil Adelee. The objective was reached on August 4 after encounters with the 116th Panzer Division, the 363d Infantry Division and other forces.

### German Counterattack at Avranches

On August 6, weary of combat and in need of rest, maintenance and rehabilitation, CC Boudinot was ordered to a rest area. On the 7th, however, the combat command was attached to the 30th Division to repel the German breakthrough attempt at Avranches. Heavy fighting took place around Le Mesnil Adelee and Le Mesnil Tove. The command was shelled, bombed and attacked by infantry and tanks for 5 consecutive days.

Official report for August 9 described this fury: "At 1145 Task Force 1 (Colonel Roysdon) was bracketed. Expected enemy fire began falling around noon. Lieutenant Colonel King's command half-track exploded. Attempt was made to move Colonel Roysdon's CP. A shell struck the half-track, wounded an officer and cut through the sides of the vehicle so that it looked like a sieve. There was a tree burst; then a round landed by the front sprocket. Colonel Roysdon and his staff were underneath the tank. No one was injured. Heavy shelling continued until 1600."

Meanwhile, CC Hickey had cut even deeper into German positions and had received its full share of the attack toward Avranches. On August 1 Lieutenant Colonel L. L. Doan's task force was ordered to advance and to seize the high ground in the vicinity of Belle Fontaine, northwest of Mortain. Task Force Z, commanded by Lieutenant Colonel John Daniels of the 1st Infantry Division was to advance via Reffuevielle to seize the high ground near Romagny, to the southwest. The command was given the 3d Battalion, 18th Infantry for further support.

During the night of August 2, the advance was held up by a road block, but at dawn Juvigny le Tertre was taken after a severe fight.

Further advance was made on August 5 when Task Force X under Colonel Doan set out for Le Teilleul. A smaller force, sent to hold Barenton, did not rejoin the command until August 12-13.

On August 6, Task Force Doan set out for Ambriers le Grand on the Mayenne River and arrived there at 0830 hours. Considerable fighting was necessary but the bridge was seized quickly, and the 1st Infantry Division pushed across to establish a bridgehead on the east side of the Varenne River. The following day, Colonel Walter Richardson's task force moved to positions around St. Mars sur Colmont. Except for an outposting operation at Gorron, this maneuver practically completed CC Hickey activities west of the Mayenne.

The 3d Armored Division rested and licked its wounds. Major General Maurice Rose (then Brigadier General) had assumed command, and now he reviewed the elements which were to go with him into further battle.

Since D plus 18, when the division had landed in Normandy on Omaha Beach, the men of the 3d had become seasoned soldiers, weathered and squint-eyed. They had been introduced to war. They had plunged into action green but confident. They had tasted the bitterness of death, and fear, and near defeat. They had gone to war with the good-natured confidence of American sportsmen, and had learned to play for keeps—to hate the enemy. These men had arrived in the arena of war, hard and ready, and by that token they had survived.

The division was no longer a collection of separate elements: the "Spearhead" was a team! Proof was soon forthcoming.

### The Falaise-Argentan Pocket

The British Army, driving south from Caen, and the U. S. First, smashing east, had trapped a sizeable part of Field Marshal von Kluge's Seventh Army in the Falaise-Argentan pocket. The 3d Armored was ordered to close the escape gap.

On August 13, CC Hickey, moving out in two columns, led the division attack. The axis of advance was Mayennes—Pré en Pail—Carrouges—Ranes—Fromental. With Task Force Doan to the south, and Task Force Richardson to the north, the combat command moved through Couptrain and Javron, cleared these towns of the 728th German Infantry Regiment, and halted its first day's drive with more than 50 miles of ground covered! In comparison with this day's action

the German blitzkrieg of 1941 looked like a midget auto race in slow motion.

Heavy fighting broke out beyond Pré en Pail. In the late afternoon of August 14, Carrouges was a picture of war at its grim height. German vehicles by the score testified to the effectiveness of the Spearhead. Along the Carrouges-Ranes road, armor of both sides had suffered. Panthers and Shermans alike were left on that bitter boulevard, wrecked and burning. French houses burned sullenly, and aircraft dropped flares above the column.

That night, Task Force Richardson reached the outskirts of Ranes. There was a minimum of shell fire. On the left flank, Task Force Doan, coiling at Joue du Bois, engaged dismounted German troops throughout the night and in the morning moved up to seize Ranes. The balance of CC Hickey with a battalion from the 60th Infantry Regiment, engaged in mopping-up activities. Counterattacks by the German 1st and 9th SS Panzer Divisions were repulsed with severe losses to the enemy.

The 3d Armored Division moved forward and took Fromental on August 17, lost it the same day, then in a third burst of fury smashed back again. That day, an estimated 1,200 enemy vehicles passed across the front of the division—receiving deadly artillery fire and direct attack from the air. The Battle of the Argentan-Falaise gap was nearly over, but it had not yet entirely spent its fury. Many military observers agreed that this action was the true "Battle for France," for after Field Marshal von Kluge's elite elements were crushed to bits here, the Wehrmacht never again attempted to slug it out with Allied forces in France.

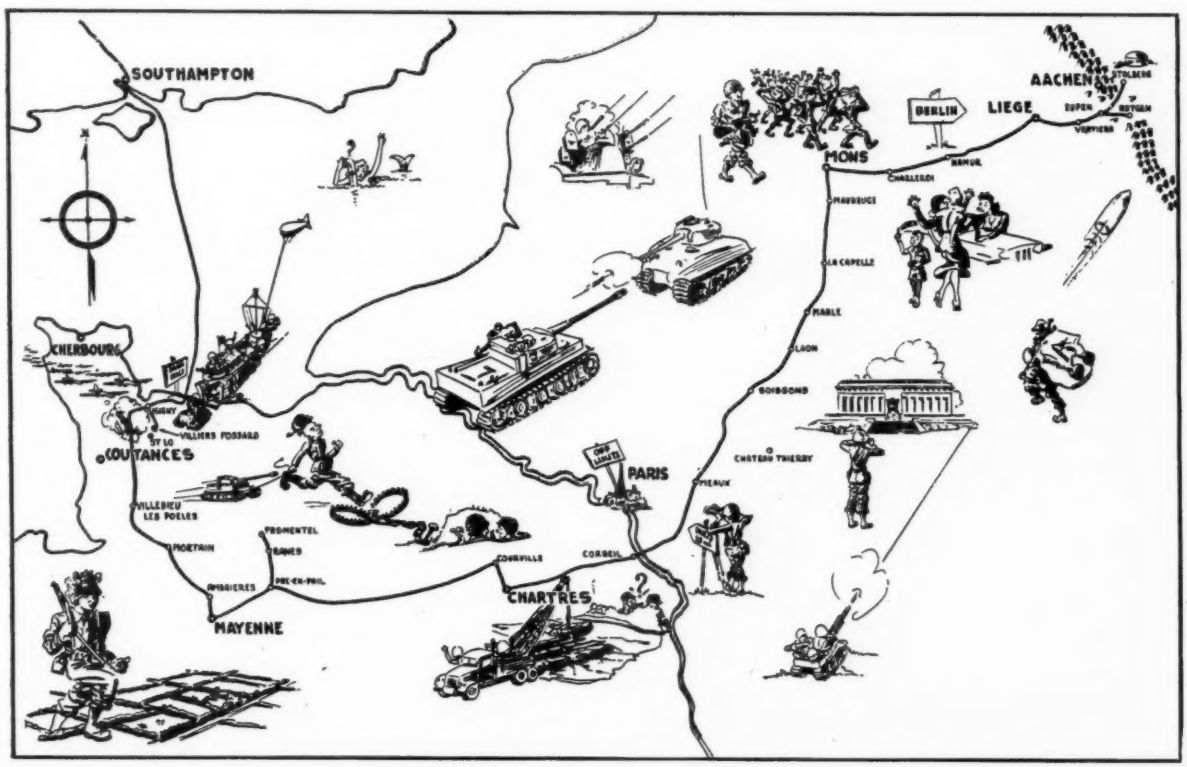
Individual performances were faultless. Tank commanders drew straws—the winner leading the attack. Fighting was often at 70 to 100 yards. One TD neutralized two Panther tanks at the negligible range of 25 yards. Two shots pierced the thick frontal armor of the vaunted Mark Vs. The TD commander himself was killed when he dismounted from his vehicle to aid the enemy wounded. Tank Destroyers of the 703d TD Battalion proved extremely valuable on road block positions where they helped smash German armored counterattacks.

On the afternoon of August 18, the Spearhead Division, represented by tanker Sergeant Donald Ekdahl of the 33d Armored Regiment met advance elements of British armor on the road near Putanges. The trap at last was closed, and for the 3d Armored Division the heaviest fighting was over.

After the Battle of the Argentan-Falaise Gap the division moved overland to the vicinity of Courville and Chateauneuf, between Dreux and Chartres, and on August 24 rolled again—this time to Corbeil and Melun. Preparations were made for the Seine crossing. From this point on the pursuit became a mad dash.

### Across the Seine

The march through northern France was a nightmare without benefit of sleep. The entire pursuit of dis-



organized remnants of a Nazi army was a test to determine which had more stamina—men or machines. Spearhead men, trained to care for their machines first, served the iron monsters with the deference due to pagan gods. In the headlong dash, supply trains accomplished marvels of movement. Often these "rear echelon" troops were forced to fight a path through enemy held territory to deliver their important cargoes of gas, ammo and rations. At one time, the trucks were hauling gas 200 miles overland.

By the time the Argentan-Falaise gap was closed the 143d Armored Signal Company alone had strung 1,200 miles of wire. In the sweep across France an average of 1,000 radio and personal dispatches per day were handled. The mileage of the signal men was 8 and 10 times the total distance covered by the division in attack.

Throughout the entire operation north of the Seine, the division was inspired by the thought that it was the spearhead of the U. S. First Army, and the phrase: "Call me Spearhead" became popular.

Crossing of the Seine was begun on the evening of August 25 by leading elements of CC Boudinot and was completed before darkness of the following day. In addition to a bridge built earlier, a 540-foot steel treadway, put up by the 23d Armored Engineer Battalion south of Corbeil, was ready for use by daybreak of the 26th.

After crossing the Seine, CC Hickey led the advance, with Boudinot on the left. Moving to Chausse en Brie, in two columns, the command drove through the 48th German Infantry Division, and closely pursuing the retreating enemy and overrunning several rearguards, on the following day passed through Coulommiers and crossed the Marne.

### Beyond the Marne

By midafternoon of the 28th, CC Boudinot had advanced across the Marne and, in an enveloping movement from the west, captured Meaux, farthest point of the German advance in World War I. After routing the German 9th Panzer Division, 48th Infantry Division, and security battalions, the combat command plunged on toward Soissons. So rapid was the advance that in many cases the enemy front line became only the width of the road. German units, closing in behind each advancing column, were doomed to destruction. Result, however, was that every element of the division, including even the trains, became a combat unit. Soissons, taken later that night, suffered an attack by 20 ME 109s.

Meanwhile, CC Hickey went on to take objectives beyond the Aisne River.

During this time all had not been peaceful at the division CP. On August 26, after crossing the Seine, it reached Quincy, but not before withdrawing Germans were encountered. The following day the CP caught up with a German supply column at Brie Compte Robert, took part in a fight, and moved to Mangy le Hongre. At dawn the CP awoke to the familiar rattle of German machine-gun fire. An enemy convoy attempting to drive through the area was destroyed.

The shooting-up of three trains in the vicinity of Braisne and Soissons on August 28 was a division highlight. By coincidence both combat commands participated. B Battery of the 486th Antiaircraft Battalion, attached to the 67th Field Artillery Battalion, fired on the engine of one 42-car train at Braisne and stopped it after putting a 37mm shell through the engine boiler and raking the cars with .50 caliber machine-gun fire. At about 2000 hours, elements of the 32d Armored Regiment of CC Hickey stopped another train at Braisne and engaged Mark VI Tiger tanks loaded on flat cars. Meanwhile, Task Force 1 (Lovelady) of CC Boudinot took part in a third episode and destroyed a freight just outside of Soissons.

Villiers Cottrets, which CC Boudinot had passed, was reoccupied by the Germans on August 29. This move by the enemy impeded the division advance and resulted in the heaviest action on the corps front that day. By nightfall, however, the CP was located outside Soissons. A German ammunition dump estimated at 4,000 truckloads, was taken at Villiers Cottrets.

That same day the crossings of the Aisne River were secured, and both combat commands advanced to take high ground to the northeast of the river. Chief enemy resistance on the 20th was reported in the vicinity of Montcornet and Rozoy, with the 4th Cavalry Group, active in reconnoitering these areas.

### New Direction: North to Mons

Given the mission of taking Sedan and Charleville on August 31, the combat commands moved out, Hickey on the right, Boudinot on the left, division reserves in the centér. At 1315 hours word came from the commanding general of the VII Corps—The direction of the advance had been completely changed from due east to north!

"You could hear the brakes squeal when we radio'd the order to halt!" one staff officer said. Some of the elements already had driven 30 miles east before the new command was received; two of the 6 columns already had engaged the enemy. The entire change in plan was accomplished by voice and radio without the writing of a word other than entries into journals.

Mons was the new objective. CC Boudinot was to advance to Vervins; Hickey to Seraincourt and Rozy sur Serre. The next day a 6-pronged drive was launched toward Mons with combat commands on a broad front, from left to right, Boudinot, Hickey, and a separate command to the right, which centered around the 36th Armored Infantry Regiment.

CC Hickey pushed on to Avesnes, while Boudinot pounded through Vervins, passed LaCapelle, and by nightfall was due west of Avesnes. Several river crossings were made during the day, and air support was

called to bomb a number of enemy columns. Elements of the 36th Infantry's combat command had been delayed, but late in the day reached Hirson.

In the early hours of September 2, the first flying bombs passed over the heads of division troops. They were not the last.

That afternoon the first elements of the 3d Armored Division crossed the Belgian border. At Maubeuge, when the task force commander had been asked via radio whether the enemy was there, he had replied that there were so many joyous civilians on the streets that there wasn't room for Germans!

The second great battle for Mons was not anticipated by either the Wehrmacht or the American First Army, and yet it probably decided the outcome of future battles more profoundly than had any other action in which this division had engaged. The estimated 40,000 German troops, cut off at Mons by this division and further mauled and rounded up by the ensuing 1st Infantry Division, were attempting to retreat to the Siegfried Line. Their organization shattered, and without communication, the vanguard of this huge force ran into road blocks of the 3d Armored Division on September 3. The debacle that followed was complete.

The 3d Armored Division captured nearly 8,000 troops at Mons, killed many more. The 1st Infantry Division, supporting the armor, captured 17,000 more. One platoon of Company A, 703d TD Battalion, destroyed 20 enemy armored vehicles in 6 hours on a single road block!

Three German general officers were captured by the division in this battle—Lieutenant General Rudiger von Heyking, of the 6th Luftwaffe Field Division, who said that he had been "completely surprised" because he had been advised that there was a "15 mile escape gap" south of Mons; Major General Hubertus von Aulock, ex-commander of a *kampfgruppe* which was supposed to defend Paris; and General Karl Wahle, once garrison commander of the city of Hamburg.

Prisoners constituted a vexing problem. Major Charles Kapes, Provost Marshal, set up a prisoner of war enclosure in an old sugar factory close to the fighting area. With prisoners pouring in by the hundreds, and nearly 4,000 already confined, Major Kapes and a force of 16 division MPs and 27 infantrymen from the 1st Division waged a pitched battle against attacking German soldiers. They not only turned back the attack but captured 300 more of the befuddled supermen!

## On to Germany!

By noon of September 4 the situation around Mons had become somewhat stabilized, and the division pushed on to Namur: CC Boudinot on the right, Hickey on the left.

Task Force Mills (Major Herbert Mills) of CC Boudinot reached Namur that day. CC Hickey bivouacked that night east of Charleroi, and CC Boudinot, which had alotted 45 minutes for passage through the city, took two hours and 45 minutes. Advance was delayed by the tumultuous welcome of the citizens.

The next night, with all elements of the division in the vicinity of Namur, engineers pushed two bridges across the Sambre and Meuse rivers. The first bridge measured 120 feet long; the second, constructed in 7 hours and 20 minutes, was built under the cover of darkness. CC Boudinot's Task Force King was detached to aid the 9th Division at Dinant.

Terrain east of Mons was a far cry from the wide plains of northern France. In Belgium narrow valleys with swift running streams split precipitous wooded hills. Densely populated and highly industrial, the valleys were capable—if properly manned—of easy defense.

Liege was the new objective. By nightfall, Huy, with the Meuse bridges intact, was in our hands; CC Hickey was within quick calling distance at Antheit, and Boudinot's leading elements were already beyond the

**Tanks of 3d Armored Division pause in Huchin, Germany, November 25. Units of the 3d were first in Germany.**
Signal Corps Photo

town. Meanwhile, Task Force Hoban encountered stiff resistance from by-passed troops.

While the Germans were preparing hasty defenses along the river route, CC Boudinot, on the south side of the river, turned to the right and the high ground, and by nightfall Lieutenant Colonel Lovelady's task force was on its objective, the southeast side of Liege. So surprised was the enemy by the flanking move that their guns were pointed the wrong way.

The night of September 7 General Konrad Heinrich, commander of the German 89th Infantry Division, was killed as he attempted to drive through a roadblock near Liege in a sporty convertible cabriolet. He was the 4th German general for whom the division had accounted.

On the 8th Lieutenant Colonel Hogon's force with supporting infantry cleared Liege of the enemy, while the engineers constructed 510 feet of treadway bridge across the river in darkness. Meanwhile, CC Hickey mopped up on the north side of the river. That same day General Bock von Wulfingen, a 5th German general, was captured.

Setting out at 1100 hours on the 9th, with Verviers as the objective, CC Boudinot met organized opposition for the first time in days. Meanwhile, CC Hickey crossed to the east of the Meuse and advanced to the high ground north of Dison—also against opposition. Allied air attacked German columns stretching from Louveigne to Limbourg, and by that night leading elements of the 33d Armored Regiment were in Pepinster.

The following day CC Hickey reached Limbourg, where it was temporarily stopped. Boudinot ran into many felled trees beyond Theux but continued his advance and took Verviers. At Theux a German military warehouse, filled with foodstuffs and tobacco, provided 3d Armored Division men with cigars. That day the division CP moved to Verviers.

Eupen, falling to CC Boudinot on the 11th, was occupied by the infantry. CC Hickey knifed through Lohirville and Welkenraedt against constant pressure to an objective northwest of Eupen. The 83d Armored Reconnaissance Battalion screened the division's movement and air cover was provided.

As the division neared Germany V-for-Victory signs, flowers and "vive L'Amerique" declarations disappeared. Eupen was a sullen, paradoxical town. A few Belgian flags hung from the windows; the white banner of surrender trailed in others. This was border country, a place of conflicting emotions, bitter hatred—and suspense. Last stop in Belgium. The somber-eyed German civilians of Eupen glanced furtively at the triumphant armor of America and wondered whether the vaunted West Wall could possibly halt the avalanche.

Immediately, General Rose ordered reconnaissance to patrol the routes toward the Siegfried Line, reconnoiter for crossing points, and determine the strength of the enemy.

Recon elements of CC Boudinot set out at 0800 on September 12. Several routes were surveyed, and one finally chosen. The advance was barred by road blocks of imbedded steel rails and gates of heavy cables strung across the road. The obstacles were covered by fire from heavy pillboxes on the flanks. Excellent coördination between tanks, infantry, engineers and artillery, quickly reduced these strong points. While artillery and tanks maintained heavy fire, engineers attached to the task force moved forward to remove the blocks. Tanks rumbled through the gap and at 1451 hours leading elements of Colonel Lovelady's task force were on German soil. It was the first invasion of Germany in force since Napoleon. Resistance in Roetgen was light. The 83d Reconnaissance Battalion occupied the town, and outposted it immediately.

### Inside Hitler's Reich

Meanwhile, CC Hickey also had plunged into Germany proper, and on the night of September 12-13 assembled in the concealment of the Aachen-Eynatten Wald. After patrols reconnoitered the dragon's teeth of the line during the night, the attack jumped off at 1000 hours under the direct supervision of Colonel Doan. Infantry lunged forward through the dragon's teeth, followed by engineers and tanks. Their combined efforts breached the first line and led to a heavy exchange of fire. A number of 3d Armored Division tanks were knocked out and, for a time, the attack faltered, but soon the task force rallied and stabilized its gains. September 14 was spent in mopping up the area and in reconnoitering the second line of defenses.

On September 15 the second line of the Siegfried was breached and the town of Busbach cleared. Opposition was extremely heavy. Artillery and mortar fire became intense, but the command moved forward. Fresh enemy troops were encountered for the first time. Fortunately the rapid advance, plus the destruction of the large German force at Mons, combined to prevent the enemy from properly manning the West Wall.

CC Boudinot also had attacked the outer defenses of the line on September 13 with similar success. Division engineers, invaluable in the breaching of the line said that the Siegfried defenses were not a particularly intricate engineering problem. "With proper covering fire," said Colonel L. G. Foster, "we could crack the Siegfried any Thursday afternoon, and have time to knock off for tea."

The 3d Armored Division had wound up one of the most amazing armored force operations in the history of warfare. Eighteen days from the Seine to the Siegfried! And now, in a final, powerful burst of effort the division had smashed completely through that storied West Wall into the confines of greater Germany. With the 1st, the 4th, and the 9th Infantry Divisions, these men who had first grappled with the enemy only two months before, had now become part of the "First Team of the First Army."

Medics load a casualty on stretcher-carrying jeep, Tettingen, Germany, Jan. 15, 1945.

# Medical Evacuation

## With a Reconnaissance Squadron

by Captain Lawrence Loewinthan, M. C.

### Training

THE nature of work performed by a medical detachment of a reconnaissance unit in actual combat presents problems of evacuation and medical care under fluid conditions that are not covered by any standard procedure or field manual.

The tactical situation of a reconnaissance unit, in which troops work great distances apart, necessitates an individual training program for the medical detachment; so to facilitate prompt medical aid for individual casualties, a special training program was set up for the Medical Detachment, 125th Cavalry Squadron. Among other things the program called for one half-track ambulance and two aid men to accompany each troop on its mission. This plan enabled the ambulance to retrace its route when returning to the aid station (which would either be with or close to squadron headquarters) instead of being dispatched from there to go forward and locate a troop and its casualties. Another advantage derived from this practice was the reduction in the time lag between infliction of the wound and receipt of medical aid.

The plan to have an ambulance accompany each troop necessitated intense training in map reading, evacuation under the various tactical situations, and the development of individual initiative and self-reliance in all medical matters. To do this, the enlisted men were not only trained in the care and treatment of the wounded but were instructed in the diagnosis and treatment of various common illnesses which occur whether in garrison or in the field. In addition to lectures, training consisted in having medical aid men, under the supervision and correction of the medical officers, diagnose and treat patients.

Great stress was laid on the tactical employment of a reconnaissance unit. It was felt that if the aid men understood the tactics involved, they would be able to make a more competent decision on the care and evacuation of patients. Besides training by lectures, demonstrations, and dispensary applications, actual field problems were worked out so that even on a routine march by the squadron to a firing area, the medical detachment practiced this chain of evacuation.

Every reconnaissance soldier should be well equipped to give himself or his comrade first aid. In order to achieve this, the training program was extended to include demonstrations and county fair exhibits for all members of the squadron.

Mobility of the aid station was deemed very important. An attempt was made to arrange equipment in

★Commanding, Medical Detachment, 125th Cavalry Reconnaissance Squadron (Mecz).

the half-track ambulances and the one-ton trailer in such a manner as to make it unnecessary to remove anything from the vehicles. One could work directly in and from them. Both the one-ton trailer and the aid station half-track ambulance could go into action in 30 seconds, and the ambulance could even be used as an examining and treatment room on the move.

### Procedure

When the 125th Squadron arrived at the assembly area, one mile south of Vouilly, July 1, 1944, it was assigned a defensive mission along the Vire Canal. Immediately the medical detachment put into operation its preconceived plan and sent one ambulance with each reconnaissance troop. This mission lasted only two days, and there were no casualties.

On July 7, the squadron was attached to the 30th Infantry Division and went into action across the Vire Canal in the vicinity of St. Jean de Daye and Goucherie. This was an assault mission, on which the squadron encountered well established antitank weapons and well dug-in infantry positions, protected by high hedgerows. Although casualties were high, the evacuation system worked very satisfactorily. The armor protection of the half-track ambulances saved the aid men on numerous occasions when small-arms fire hit the ambulances. (One ambulance had its flag shot away and its water can on the side destroyed.) The ambulances found the aid station quickly and easily. Patients were received, treated, and forwarded in fast time and good condition.

The squadron's next assignment was a holding mission in St. Lô, with foot reconnaissance of the high ground to the east. On July 21 the aid station, a half-mile south of Couvains, received a concentrated artillery barrage; 8 men were killed outright and 32 wounded. With the medical detachment thus suddenly over-taxed, it was necessary for every aid man to work individually and as rapidly as possible in an effort to treat and evacuate the casualties before any more artillery fell, and their training in individual resourcefulness paid dividends. Within 30 minutes every patient had been treated and evacuated, and all dead collected and turned over to the GRO and the chaplains. Had it not been for the stress placed on the training in individual initiative the results achieved could never have been attained. The aid station site had been picked between two very high hedgerows, which were parallel to each other and about 12 feet apart. One hedgerow was over 6 feet high and the other 5 feet. It is believed that this location, plus deep, well covered foxholes, prevented injuries to the medical detachment, although artillery fell all around.

On August 14 the squadron was ordered to reconnoiter ahead of the 30th Infantry Division in the vicinity of Domfront and assault Hill 228 and the region of Dompierre. Because the medical detachment lacked sufficient personnel to allow one aid man per platoon, as does the infantry, and because the T/O calls for no litter bearers, the medical situation on this occasion was made extremely difficult.

On August 19 the squadron was given the mission of preceding the 30th Infantry Division and 2d Armored Division on a wide sweep from Dompierre to Senonches. This was a typical cavalry reconnaissance mission, with extreme mobility and fluidity. As a result of the grit and dust there developed a tremendous number of cases of conjunctivitis which at each halt were treated in the specially constructed one-ton trailer without holding up the column or the tactical situation. Altogether, almost 300 cases were treated.

On August 22 the squadron was ordered to attack due north through Breteuil, Verneuil, and Conches. On the left flank of the 2d Armored Division, the reconnaissance troops were cleaning up enemy units that had managed to pull out through the Falaise Gap. It was on this mission that one of the medical detachment's half-track ambulances hit a land mine but, although the front end of the vehicle was destroyed, neither the driver nor the assistant driver was injured.

Beginning September 1 the squadron drove north through Peronne, Mouricourt, Valences, and into Belgium just south of Tournai.* Because of the speed of the advance there was never time to set up an aid station; patients were examined and treated in one of the half-track ambulances, redesignated into a mobile aid station. This method worked very well. Despite the fact that the second echelon of evacuation was at times 95 miles behind, the three collecting company ambulances kept the flow of casualties running smoothly. The system of having half-track ambulances out with the troops once again proved successful in finding the casualties quickly and returning them to the mobile aid station without delay.

During the 4 days that it took the squadron to advance from the Seine into Belgium, the aid men ate, slept, treated patients, and evacuated them on the road and on the move. During this time three factors kept the medical situation from breaking down. They were:

1. The mobile half-track ambulance, which had been converted into a mobile aid station.
2. The one-ton trailer that became a mobile dispensary by raising the sides.
3. The collecting company ambulances attached to the aid station for second echelon, which kept flowing back and forth under tremendous hardships of distances and ever-changing situations.

September 30 the squadron once once again went into a defensive position, this time on the left flank of the XIX Corps. For the first time since the squadron was committed to action, the medical detachment moved its aid station indoors—in a factory north of Sittard. Winter was setting in, and with it, many cases of upper respiratory diseases. The squadron unit had been in

*See "From Paris to Belgium With the 125th" Page 12.

constant action for a tremendously long period of time, and the reaction began to appear in the form of nervous disorders and combat fatigues. The replacement situation was quite difficult, especially for trained cavalrymen, so a 10-bed infirmary was set up in the factory for slightly sick and wounded cases which were treated on the spot and returned to duty.

While attached to the 84th Division on November 26 the squadron was given a dismounted holding mission at Prummern and Beeck, Germany. The medical men went dismounted and once again the lack of sufficient personnel and litter bearers caused the treatment and evacuation of the wounded to be extremely difficult. This mission further proved that a half-track ambulance with its two aid men works well for all types of *cavalry missions,* but if the aid men are dismounted, the personnel is insufficient. Platoon aid men plus litter bearers should be attached for this type of operation.

### Improvisations

The detachment found no reason to improvise its technique or procedure, but it did often need to improvise equipment.

1. The three half-track ambulances assigned to the reconnaissance troops were reconstructed in the following manner:

The top inserts for carrying litters were moved as far as possible to the sides to make room for an aid man to move between the litters when necessary. This arrangement facilitated the loading of the ambulance, which, with the original setup, had been extremely difficult. A step was found necessary for the loading of the ambulances. The last improvised item was a sick call box, where small quantities of the various medicines used on sick call were carried. Throughout the campaign this proved of tremendous value, as troops were often scattered over a radius of 30 miles, and the usual small sick call cases, such as colds, athletes foot, gastritis, constipation, and mild diarrhea, were handled in the field by enlisted personnel.

2. The fourth half-track ambulance was changed into an improvised aid station. On one side the litter attachments were moved as far to the side as possible (as in ambulances). On the other side a work table and storage cabinets for medical supplies were built. With this arrangement the material could be taken off the shelves, placed on the work table within easy reach of the surgeon working on the patient lying directly opposite. An improvised lighting system consisted of two ¼-ton headlights (working off the half-track battery) which were freely moveable in all directions and could be brought to concentrate on any portion of the litter. A step was also necessary on this ambulance. To allow the surgeon to stand up, the roof of the half-track was raised to a height of almost 6 feet.

3. The one-ton trailer was completely redesigned so that by raising the sides, it would become a mobile dispensary. The sides were removed and hinged at the top to permit them to be raised in a manner similar to a "hot dog" stand. A second floor was built high enough above the first for the No's. 1, 2, 4, and GC chests to be pushed between them from the rear. The upper portion of the trailer was divided in half by a partition running from front to back, and on each side of the partition was a shelf. When the side of the trailer was raised, there in full view were all medical supplies available. The two halves of the trailer were identical, so that it was possible for two separate teams to work, one on each side, at the same time. On both sides were litter inserts from which the litters stretched to one of the chests with its litter support.

To set up the aid station, therefore, only the following steps were necessary.

1. The sides of the trailer were raised.
2. The chests were pulled out and set in position away from the trailer.
3. The litter rest was placed on the chests. The time to set up all 4 chests, allowing for 4 separate treatment stations, was less than 5 minutes. Litter racks were built on the ¼-ton trailer.

### Evacuation

The system of evacuation of a reconnaissance outfit must be simple and yet very flexible, as the tactical situation may change without any notice. The system for this detachment was based on the following assumptions:

1. The platoon would always know where the troop headquarters was located; therefore, they would send the patient back to the troop headquarters, where an ambulance and medical aid was always available.
2. The troop would always know where squadron was; therefore, the half-track ambulance would bring the patient back to the squadron headquarters, where the aid station was located.
3. The collecting company ambulance, which traveled with the squadron aid station, could always go back and find a collecting company.

This system, used during all types of missions in France, Belgium and Germany, was uniformly successful throughout, even during the push north through France, when the squadron was receiving orders while on the move. At no time did the evacuation system fail to work smoothly and efficiently.

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# Editorial Comment

## Spearheads

Out of this war U. S. armor has emerged as a powerful arm of opportunity. Using cavalry tactics, armor has exploited the breakthroughs made in German lines, plunged forward to disrupt rear echelons, prevent the enemy from reorganizing, cut off his supplies and communications, and spearheaded phenomenal drives into enemy-held territory.

The first decisive breakthrough in which American armor played a significant rôle occurred during the final days in Tunisia. On May 3, 1943, elements of the 1st Armored Division, commanded by Major General Ernest N. Harmon, broke into Mateur, then quickly fanned out toward Tunis and Bizerte to cut up and surround remnants of the once powerful German Afrika Korps.

In the 38-day Sicilian Campaign in 1943 the 2d Armored Division, commanded by Major General Hugh J. Gaffey, spearheaded the 72-mile dash from Agrigento to Palermo in which Major General Geoffrey Keyes' II Corps of the Seventh Army (then commanded by Lt. General George S. Patton) reached the Tyrrhenian Sea on July 22, neutralized thousands of German and Italian troops, and prevented any organized resistance on the western third of the island.

In Italy on June 3, 1944, elements of the 1st Armored Division, still commanded by General Harmon, broke out of the Anzio beachhead and spearheaded the advance of the VI Corps, under Lt. General Lucien K. Truscott, through Rome. With Task Force Howze in the lead, the 1st Armored Division then pursued the enemy north until the division was drawn from the line at Volterra on July 10.

As American troops broke out of the Normandy Peninsula in July 1944, the 3d Armored Division (Major General Maurice Rose, commanding) and the 4th Armored Division (Major General John S. Wood, commanding) spearheaded the phenomenal drives of the First and Third Armies across France to the Siegfried Line.

Now, in March, 1945, as new breaks are being made in German defenses—through the Siegfried Line and across the Rhine—armored spearheads are again out front, pursuing, harassing and surrounding a surprised and stunned enemy. To the veteran 3d and 4th Armored Divisions have been added new armored spearheads—notably, in recent actions, the 6th, 9th, and 11th, commanded respectively by Major General Robert W. Grow, Major General John W. Leonard, and Brigadier General Charles S. Kilburn. The 9th recently led the First Army across the Rhine River into the heart of Germany. The 11th, with the Third Army, spearheaded the drive north along the west bank of the Rhine to join units of the First Army south of Remagen and cut off some 50,000 Germans in the Eifel region. On March 20, the 6th Armored Division, with the Seventh Army, linked up with units of the Third in the Saar region and sealed off another 80,000 Germans doomed to inevitable death or capture.

It is interesting to note that cavalry-trained officers are predominant in these spectacular actions. Of the generals listed above, those who came up through the cavalry are Generals Patton, Truscott, Keyes, Harmon, Rose, Grow, and Kilburn.

* * *

## What Victory Means to Me

The following essay, written by Private Isadore Rubin, won first prize ($500 war bond) in a contest conducted in the Mediterranean Theater of Operations. It is reprinted here because of its outstanding merit.

At the moment, it's difficult to think of victory as meaning anything but an end to fear, to loneliness and death, and a chance to go back to pick up the strands of interrupted lives.

Henceforth, each simple pleasure, each right we always took so lightly will take on rich meaning. We know what it cost to keep them, and we know too that we've really earned a share in them.

But victory means much more.

With victory, we stand on the threshold of limitless inventions and comforts. We possess the resources to extend our horizons in every field of endeavor and every aspect of human relations.

However, ancient and stubborn enemies are still to be conquered. Enemies which must be overcome not by armies, but by minds and hearts and talents set wholly free. Such enemies are poverty, insecurity, prejudice, disunity.

These too shall be conquered. For we have begun to think more deeply and more dynamically. And if we can sweep aside untold obstacles to smash the most ruthlessly efficient machine of destruction ever devised, surely we possess the vision and the practical genius to organize for peace, security, and a world designed for living.

Till now, many have ruled because of accident of birth or power of wealth. But throughout the world, the unfit, the weaklings and the traitors are falling by the wayside. New leaders are rising from the people those who never sold their heritage of courage, faith, and simple human dignity.

With victory, we shall have destroyed those who

would have enslaved the world. Our sacrifices have been great, but we have won the opportunity to emerge from the animal kingdom and enter the kingdom of man.

I look forward to living in such a world.

* * *

### Across the Rhine in 1918

9 March 1945

Editor, The Cavalry Journal:

The recent press accounts of the brilliant advances of the First and Third United States Armies to and across the Rhine have recalled vividly to my mind my own experiences in the last war as commanding officer of the first troop unit to reach and cross the Rhine River. That unit was Troop I, 2d Cavalry. I thought perhaps a brief recital of our experiences at that time would prove interesting to your readers of today. Troop I, 2d Cavalry, was a horse unit, of course, and not mechanized and motorized as the advanced units of today are.

It was shortly after dusk on the evening of 6 December 1918, probably about seven o'clock, in the town of Insull, Germany, that I received orders to move on to the Rhine River.

Troop I had been acting as advance cavalry for the U. S. III Corps during the march through Belgium, Luxembourg, and into Germany. We had just finished supper when a motorcycle orderly found my billet and directed me to go to the nearest telephone, which was in a small town some three miles to the west, and call the G-3 of the III Corps, Colonel Adna R. Chaffee.

When I called Colonel Chaffee, he directed me to complete the remaining scheduled two-day march to the Rhine River on the following day. This we did, arriving about 2 P.M. at the town of Remagen, the very spot where General Hodges' troops are reported to have crossed the Rhine River on 7 March.

We had been informed that we would remain on the west bank of the Rhine River for about five days before crossing. A reconnaissance was accordingly made of Remagen and the surrounding area to select a suitable billet for the troop. A five hundred acre estate known as "Haus Calmuth," which served as a hunting preserve and country estate for a man who lived in Cologne, was selected. I have no doubt but what this beautiful, modern house and grounds are being utilized today as a headquarters for some of our larger units.

After five days at Haus Calmuth, the troop crossed the Rhine on the Ludendorff Bridge, which apparently is still undamaged, and reconnoitered the perimeter of what was to become the American bridgehead at Coblenz. We spent the night at a small town, Altwied, and the following day completed our reconnaissance, arriving at Neuwied, which was to become III Corps

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Headquarters. The experiences of Troop I are set forth in more detail in an article published in The CAVALRY JOURNAL in March 1923.

I thrill at accounts of the exploits of the cavalry units of today. I am sure the glamor of the cavalry and the *esprit de corps* that has always characterized it have not changed.

Sincerely yours,
S. H. SHERRILL,
Brigadier General, U. S. Army.

* * *

### Men In Battle

How much of a battle can a soldier witness? If a man is swimming for his life, how much of the ocean does he see? Half a dozen perilous yards in front of him, a few menacing feet to the right and the left of him, perhaps; while as for what lies behind him, he knows nothing and has no time to guess. He is straining every muscle and nerve in order to keep alive. If anger, or fear, or the excitement of combat have not crowded out all other emotions, he may occasionally feel a certain astonishment at not being dead. Mr. Mann has always believed that the peculiar dull silence of old, scarred warriors is not the silence of sick horror but the silence of vague emptiness—the half-shamefaced silence of men who cannot think of anything to say. A soldier can only speak of what he alone has done, and this may be told in a few seconds, because there is not very much for one man to do. When the moment comes, the fierce moment of bloody contact, every man is alone in his own red mist with his own desperate enemy. The beautifully coördinated army breaks up for a little while into the atoms of which it is composed —into tiny, lonely life-histories.—GERALD KERSH, in *Faces in a Dusty Picture.* (Whittlesey House.)

* * *

### Motor Maintenance

From the South Pacific comes this statement of a high-ranking officer who knows what he's talking about: "With twenty-four-hour operation, a normal shortage of trucks, overworked drivers, night-driving, poor roads, and the usual lack of responsibility for the protection of government property which bedevils forward areas, motor maintenance—especially first echelon —must receive the constant attention of all commanders if the deadline is to be kept below an excessive proportion of vehicles assigned. The prescribed periodic checks, monthly and semiannually, must be halved, at least. Motor maintenance is most important and requires constant and unremitting attention."

* * *

It's a lot easier to prevent a fire than it is to replace a building after it has burned to the ground. Preventive maintenance is like fire prevention—it protects equipment from needless destruction.

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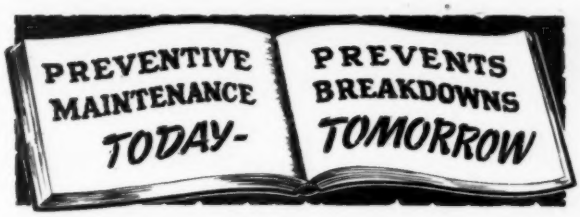



## Keep Bearings Wrapped*

Bearings are still among "the chosen few" at the top of the list of critical items used by the Army. Therefore, constant attention to maintenance practices in the use and handling of bearings is one of the important duties of Army personnel whose responsibilities involve operation and maintenance of mechanical equipment on which they are used. And no less important than their proper use in service is their handling before installation.

A common failing in this phase of operation is the tendency to take bearings out of the wrappers before they are ready for installation, or to fail to wrap them when they are being stored.

An unwrapped bearing is like a soldier without a foxhole. It hasn't a chance against its mortal enemies —sand, grit, rust, and breakage—for it takes only a couple of grains of sand to score a bearing and turn it into a piece of scrap. A bearing stored in a bin without wrapping is subject to a constant shower of particles of sand and grit sifting down from items thrown in on top of it. A bearing placed on the running board of a vehicle or on a dirty workbench can pick up enough grit in one instant to ruin it in short order. Moisture from the hands will cause rusting as surely as if the bearing were dipped in a pail of water.

There are, of course, numerous other danger points in handling bearings which are equally vital. They must always be cleaned and lubricated properly, and in this regard it is essential that dry-cleaning solvents and lubricants be *clean*. Lubricant containers, therefore, should be kept covered as much as possible, to prevent dust and grit from settling and blowing into them. Hands, benches, rags, tools—everything that touches the bearing—must be kept *clean*.

Lubrication orders and instructions in technical manuals must be followed to the letter, so that bearings are installed and lubricated properly.

Bearings are scarce—they *must* be protected. And the wrapping is one of the most important forms of protection. A bearing that is unwrapped for any reason should be wrapped again before storing. A bearing should never be issued unwrapped. Anyone who receives an unwrapped bearing should wrap it before storing. Bearings must be kept wrapped *at all times*—right up until the time they are installed.

*Maintenance Division, Headquarters, Army Service Forces.

# General Hawkins' Notes

## Horse-Armor for U. S. Army?

THE United States is the leading mechanical nation in the world. Its amazing mechanical developments, especially in transportation, have led our people to think in terms of mechanics about all military movements. Everyone knows how to drive a motor vehicle, and almost everyone knows something of its care and maintenance. Paralleling this trend, on the battlefield, armored forces have taken over the rôle of cavalry and are regarded in most circles as competent for that rôle.

Although at the beginning of this war infantry, like cavalry, was disparaged in the eyes of many as obsolete, it has now regained its rightful recognition as the basic arm. Despite the wonderful successes of Russian cavalry, the American public remains oblivious to cavalry operations and displays no interest in whether American cavalry could have done as well or whether the lack of cavalry in the U. S. Army is a self-imposed disadvantage that may have handicapped operations in some theaters of the war.

Cavalry is mentioned often in dispatches from the various fronts. But these dispatches refer to mechanized cavalry reconnaissance units, which have served with such distinction in the European Theater, or to the 1st Cavalry Division which, without its horses, is serving in the Pacific Theater. This division is partly armored and partly motorized and, operating as a special type of light infantry, is taking on both infantry and cavalry rôles. As such, it has become famous. All of these units have retained their cavalry celerity of movement and many of the principles of cavalry action. This discourse, however, is concerned solely with the value of horse cavalry, the combination of horse and mechanized cavalry, and employment of horse cavalry with armored forces.

The only positive examples of the value of horse cavalry in this war are found in the successful exploits of the Russian Army. Would not horse cavalry have been just as valuable to the U. S. Army? One can only surmise what might have been done if cavalry had been available, but certainly an opportunity to surmise correctly is afforded by a study of the different campaigns, combined with a knowledge of the capabilities of modern cavalry—with its horses, its trucks, its armored vehicles, its pack horses bearing supporting weapons such as machine guns, bazookas, 80mm mortars, and its great cross-country mobility.

From all sources of information gained from newspaper accounts, reports, communiques, letters and personal conversations with officers returned from various battlegrounds, it appears that there have been plenty of opportunities for the useful employment of cavalry. It is not only that opportunities have occurred. Crucial needs have occured. The absence of cavalry has caused loss of men, loss of time, and actual frustration of effort.

In previous Notes published in The CAVALRY JOURNAL, attention has been called to the fact that mechanized cavalry reconnaissance units—as important and successful as they have been—could have been even more useful at less cost in men if they had been supported by or combined with squadrons of horse cavalry. It has also been stated that cavalry, combined with armored forces, would be far more effective for almost all cavalry rôles—offensive or defensive—than armored forces alone.

The importance of delaying actions has been illustrated particularly in the recent struggle in the "Bélgian bulge," where for a time it seemed impossible to check or delay the swiftly moving German columns. Troops attempting to fight delaying actions were speedily enveloped, isolated and surrounded. Time was not gained to bring up other troops to resist the onslaught until the Germans had penetrated so far into our lines as to create a dangerous and an alarming situation.

A cavalry corps in each army, or several cavalry corps in general reserve, heavily armed with bazookas and 80mm mortars, as well as their other arms, could have fought delaying action without being completely engulfed and put out of action as were so many units of our army which were completely sacrificed. There are no troops so well suited for delaying and harassing actions as cavalry. Fighting in combination with our armored troops, these cavalry units would have been invaluable. With the time thus gained, our army commanders would have been able to bring forces to bear that would have limited the depth of the German success very materially.

When it became possible to organize our counterattack, these cavalry corps would have enabled our armies to inflict far greater losses upon the Germans. As it was, our troops, both armored and motorized, were too much bound to the roads. Of course, there were cross-country movements. But they were too slow. The repulsed Germn troops were able to escape in almost every instance.

Troops on roads can move fast when there is scarcely any opposition, as was the case in France after the breakthrough in Normandy. But when serious opposition is offered, only cross-country maneuver can speed up our advance and threaten the destruction of im-

portant forces of the enemy. In most countries there is much terrain where neither tanks nor motorized troops can move rapidly.

When moving by roads from long distances in the rear, motorized infantry and armored forces can move much faster and farther in a day than cavalry could. But when cavalry is kept fairly close to the forward lines so as to be available when needed, it can move as fast and as far as armored troops under the same circumstances. It then becomes available for cross-country movements.

In the first part of the Italian Campaign, cavalry could have been extremely useful, and later in the pursuit of the Germans from the Anzio beachhead to the Arno River, the need for cavalry was almost tragic. The following details concerning this operation are particularly significant:

"The attacks in May seriously damaged the German forces. They lost heavily in men and equipment. They gave every indication of confusion and disruption. They gave up all pretense of security; sent all radio messages in clear text. Our troops encountered mixed units, pieced together hurriedly to fill gaps. Considerable advances were made against no opposition because German troops were mishandled. Many civilians described the picture of the retreat through Rome—men looking very tired and dirty, on overloaded trucks, on donkeys, Italian carts, straggling afoot. We took heavy antiaircraft batteries intact. Every vehicle that broke down even in a minor way was set afire and abandoned; the roads in some places were choked with them. We captured small groups with written instructions, 'Get back to Florence in any manner possible!' All of these details add up to a picture of a beaten army on the verge of disaster—*But disaster never overcame it.*"

My informant goes on to say that a corps of two horse cavalry divisions could, in his opinion, have enabled us to destroy utterly the German Fourteenth Army. Our army could have marched to the Brenner Pass with little opposition. He says that even smaller cavalry units could have doubled the Fifth Army's take of prisoners. This could have been done, of course, only if the high command had held the cavalry for strictly cavalry operations and resisted the temptation to send the cavalry, dismounted, into the mountains during the previous winter to relieve the weary doughboys.

From the beachhead to the Arno, a distance of about 350 miles, the country is low but hilly (except on the very coast where it is mountainous). All of the country is well watered. The varied country affords cover and at the same time good observation points. Fields are separated by hedges or low stone walls—no fences or other obstacles to impede horse cavalry maneuver.

Our 1st Armored Division led the advance through this country. It had plenty of strength in tanks, infantry and artillery, paratroops, tank destroyers, etc. When the Germans stopped to give battle in force, all of these troops were used. But there were no troops who could maneuver across the terrain with speed—not even the tanks.

Most of the time there were endless miles of our troops on the roads with only one platoon in front doing the fighting. There was no cross-country mobility. Even country that appeared from a distance as good tank country was so cut up with ditches and canals, or ravines in the low hills, that tanks could not maneuver far off the roads.

The problem for the enemy rear guards was made easy because all they had to do was to defend direct advances along the roads. They would post a few guns in good positions to fire down the roads, and the head of the pursuing tank column had to take it without support from the troops or guns immediately in rear. This was hard on the morale of the small unit in front. To outflank these positions, the tired infantry had to move across-country with great fatigue and little speed.

Our artillery, well back in the column, had to pound these enemy positions well before any advance could be resumed. Long, powerful columns were delayed for hours. A sense of frustration and impotency often overtook the leading column commanders. Usually, the enemy delaying forces had no supporting troops behind them. A single squadron of horse cavalry could have maneuvered to get behind these small German forces and force them either to move back quickly or be captured by combined forces in their front and rear. In many cases, even a single squadron of cavalry would have doubled the speed of the long leading columns on the road. The enemy delaying force was invariably composed of a few tanks, antitank guns, and half-track mounted infantry. Cavalry, well equipped with bazookas, would have gobbled them all up unless they moved back so quickly that they could effect little delay on our road columns.

Thus, with cavalry squadrons at the head of all advancing armored troops on the roads, and with a few cavalry divisions maneuvering independently between our advancing road columns, the results would have been stupendous. The German Fourteenth Army would have been totally destroyed, not because our cavalry alone could have destroyed it, but because our cavalry would have enabled our pursuing tanks and other troops to have advanced at double or perhaps more than double, the speed they actually attained under the circumstances.

This is only one of the examples that might be used to illustrate how cavalry would enhance the value of armored troops and mechanized cavalry squadrons. In fact, as often stated before, the combination of tanks or armored forces and cavalry could accomplish successes that are as yet unheard of in our army. Months of campaigning, thousands of lives, much equipment, frequently could be saved just by having our army fully completed instead of lacking in the one essential element it still needs—the cavalry.

Men of the 1st Cavalry Division move past a dead Jap in the Estera De Gallina sector of the Paco section of Manila, February, 1945. Their surprise entry of the city from the southeast on February 3 made possible the release of more than 3,000 internees from Santo Tomas Camp.

Signal Corps Photos

Major General Verne D. Mudge, Commander, 1st Cavalry Division, holds an informal but urgent conference on a road just behind the front in the Paco section of Manila.

# Cavalrymen Re-enter Manila

Manila, Feb. 3 (INS).—Gaunt, unshaven troopers of the 8th Cavalry swept into Manila at 6:50 p.m. . . .

This military coup, the most daring and dramatic in the Pacific war, was made by less than 800 cavalrymen who, after three days of ceaseless advance, sped into this surprised city without any advance knowledge of the Japanese strength here.

Flying mechanized columns, which advanced more than a hundred miles in three days, outdistanced all rivals to gain high honors of being the first to enter Manila.

It was fitting that this honor should go to a unit of Major General Verne Mudge's 1st Cavalry Division, led by 28-year-old Lieutenant Colonel Haskett Conner. His squadron has spearheaded the cavalry attack since the push began three days ago.

On that day the cavalrymen were 50 miles behind the most advanced outposts, and they had to travel through unoccupied territory of the eastern Luzon plain.

Luzon, Feb. 5 (AP).—American troops reached the heart of Manila on February 4.

Yanks of the hard-hitting dismounted 1st Cavalry Division, in a wide encircling move by dark, entered the city Saturday night against harassing sniper fire and quickly captured Malacanan Palace and the large Santo Tomas concentration camp, where . . . 3,000 Santo Tomas internees were liberated. They were mostly American women and children interned there since May 1, 1942.

The northern half of Manila, Pearl of the Orient, was in American hands as elements of the 1st Cavalry Division and 37th Infantry Division (the latter entering from the north) pressed for the knockout.

# 1st Cavalry Division

## In the Admiralty Islands—Part III

THREE days after the first landings on Manus Island (March 15, 1944) the 8th Cavalry moved into Lorengau township and sent patrols out on the roads to Rossum and Salesia Plantation.

### Road to Rossum

Moving toward Rossum, Troop "A," 8th Cavalry, ran into stiff fire from several bunkers just outside the regimental outpost line. Quickly bringing forward their heavy weapons, they rapidly made a shamble of each of the bunkers and killed all defenders. A perimeter was established for the night about 500 yards beyond the old outpost line.

Continuing the advance toward Rossum the next day the 7th Cavalry met about 150 more Japs and dropped back to permit artillery to register on the enemy position. As artillery and RAAF (Royal Australian Air Force) P-40's rained high explosives, reinforcements were sent down No. 2 Road to establish a new position from which to attack.

On the 22d the 7th Cavalry established a perimeter on the northern edge of the town preparatory to an attack in force. The advance south from Lorengau had been confined mainly to a track, flanked on both sides by precipitous banks, descending into deep, swampy jungle ravines, and it was necessary to build a road for the supply route in order to advance combat elements. The attack, launched by the 1st Squadron, accompanied by two medium tanks, each with its now inseparable bulldozer clearing the way, moved forward on the heels of artillery and mortar fire from supporting units in the rear.

During the day, 21 bunkers were destroyed on the road to Rossum in addition to many more which had been barely visible on the enemy's well selected defensive position on the hills to the south.

### Papitalai Mission

Meanwhile, back on Los Negros, forces of the 12th and 5th Cavalry had joined south of Papitalai Mission and practically doubled the size of their perimeter.

Patrols still working the area beyond the lines on Los Negros reported that the Japs' ammunition was getting very low and that there was a severe shortage of medical supplies; also, the enemy's hope for air support reinforcements appeared to be waning.

On the 22d, combined elements of the 5th and 12th Cavalry (two squadrons) launched an organized attack against the elevated enemy positions west of Papitalai Mission. (See Map 1.)

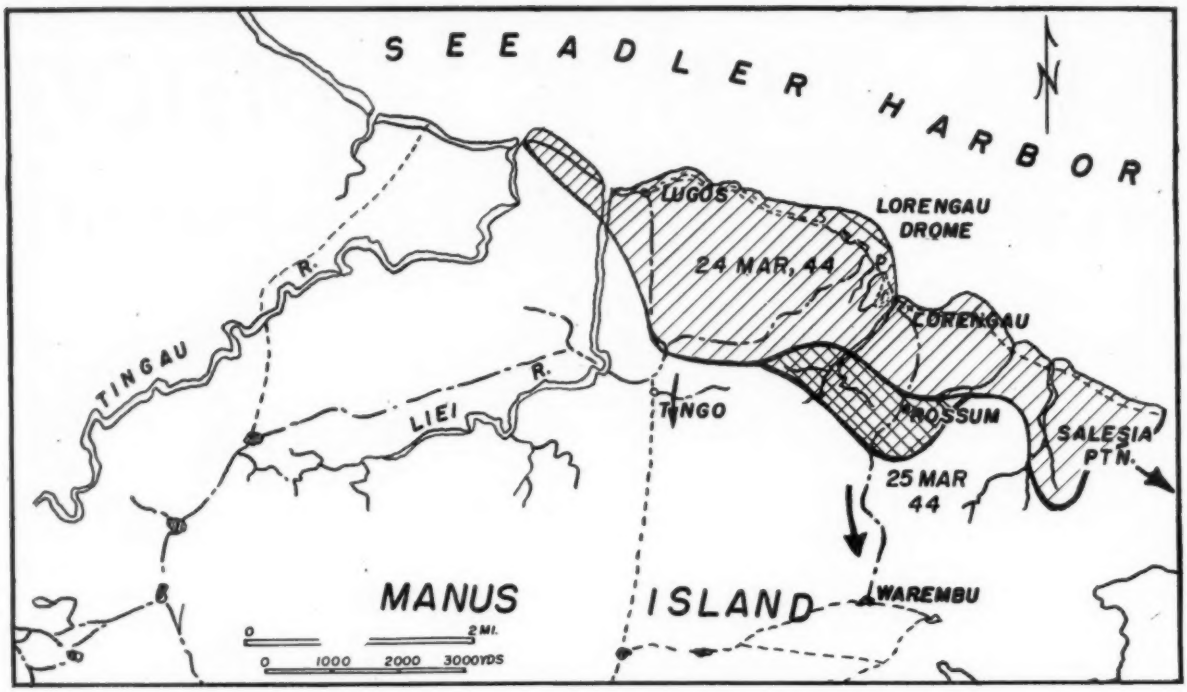
Although the enemy made full use of his mortars, machine guns and rifles, the assault progressed rapidly. The terrain, consisting of razor-back ridges and deep ravines, thickly matted with an almost impenetrable growth of matted vines, proved a more difficult obstacle than the enemy. The success of this attack left all known enemy forces on Los Negros bottled up; the remaining Japanese had no course but certain annihilation or self-destruction. Their continued pestiforous but ineffectual counterattacks gained nothing but an ever-increasing roll of Sons of Heaven killed in action.

### Attack on Rossum

Over on Manus Island the Lorengau garrison made no counterattacks, except of the suicidal variety when a squad would attack one of our platoons. For the most part, the enemy deployed his forces in depth on well-selected positions, replete with weapons, squad and individual emplacements, all mutually supporting.

The enemy did not retreat. He appeared determined

Map 1




Map 2

to hold his position no matter what the cost. But for the vigor and resourcefulness with which our troops pressed the attack, the entire battle would have rapidly degenerated into a slow, costly siege operation.

While maintaining its position on the outer edge of Rossum, the 7th Cavalry continued destroying pillboxes, killing snipers and in general clearing out remnants of enemy defenses all along its perimeter. (See Map 2.)

By the 24th the 1st Squadron of the 7th resumed its assault against the heavily defended township and, after some of the fiercest and most difficult fighting in the Manus campaign, managed to get 200 yards south of the village. The thickly mined track delayed the advance of supporting medium tanks and consequently slowed down the progress of the ground troops.

As late afternoon approached, the 7th Cavalry fell back again to permit an air strike by P-40's on enemy positions, but the jungle with its tangled mat of rain forest rendered difficult the pinpointing of enemy positions for an air strike. Several methods were tried. All of them were successful to some extent. But for each scheme our troops devised, the Japs would quickly introduce a countermeasure. For example, when the enemy position was marked by an artillery or mortar smoke shell, the Japs would quickly fire one or two smoke shells into the cavalry lines. When the front line of the troops was marked by smoke, the Japs immediately marked their own front line of the troops. However, the Jap was not successful in his use of counterruses and strategems. The troops of the 1st Cavalry Division were more resourceful, more clever, more ingenious than the Japs. They would devise useful, workable means far more rapidly than the Jap could counter.

In all air support missions, the air liaison parties proved a valuable and indispensable part of the team. Their position was normally on or in front of the front line of the troops. They willingly and cheerfully took every risk of combat in order to insure properly directed air support. These groups stand out among the many unsung heroes of any battle.

The final assault against Japanese positions around Rossum was made the next day by the 1st Squadron of the 8th Cavalry, the veterans of the attack on Lorengau airdrome.

At 0800 the first flight of P-40's supporting the attack appeared over the target and dropped bombs and fired thousands of rounds of ammunition. As the last element completed its attack, field artillery battalions sprayed the Jap lines with shells. Then as the artillery fire lifted, the 8th Cavalry moved southward. The approach through the jungle growth was slow, continuously impeded by a series of densely laid land mines. As the attack jumped off, it was met by a hail of automatic weapons fire and knee mortars from the bunkers left in the way, but the attackers swept forward as though driven by some dervish, and by 1700 all enemy resistance had been obliterated.

All organized resistance on Manus Island was broken by this engagement. The work of the mortars received praise from all witnesses. The mortar crew established themselves well ahead of the combat elements in the attack and brought the fire of mortars within 30 yards of their position. On the final preparation, mortars were adjusted to the end that the entire barrage was

delivered on the crest of the hill to the front in an area not more than 100 yards by 50. The effect of this devastating fire was chiefly responsible for the low casualties suffered by the attacking force.

Coincidental with the 1st Squadron attack on Rossum, the 2d Squadron of the 8th Cavalry 300 yards west of Poiho Inlet inflicted approximately 30 casualties on an enemy platoon located in that area. A patrol from Troop "F" fought a meeting engagement with an enemy force of comparable size along the track leading south from its bivouac area, and killed 15 Japs before joining its troop in its perimeter. The enemy followed the withdrawal of the platoon until they approached the troop perimeter, then halted on the outskirt of the position under cover of the jungle. There they began their "Banzai" chant prior to assaulting the troop, but a well directed mortar barrage broke up the attack amid a chorus of shrieks and blood-curdling yells. Twelve dead Japs were buried and the odor of the neighborhood for days afterward indicated that many had escaped detection.

### Patrols

For the next several days widespread, vigorous, meticulous patrolling characterized the action on the part of all forces of the 1st Cavalry Division.

From bases on Ndrova and Amo Islands south of Manus, patrols and detachments were sent out to seek enemy locations and prevent the escape of the remnants of the Jap forces from the eastern sector of Manus, the largest island in the Admiralty group.

Patrols of the 12th and 5th Cavalry swept the western side of Los Negros Island as far as Loniu Passage, the dividing line between the 2d Brigade on Manus Island and the 1st Brigade on Los Negros.

Previous information indicated the presence of Japanese on Tong Island, northeast of Seeadler Harbor, so a 6-man patrol with native police boys was sent to search the island and locate inhabitants who might be of assistance in determining Jap positions. An entire squad of Japs was captured.

Small combat patrols continued to sweep the jungle by day and return to their bivouac by night, but by March 29 the almost complete absence of any Japanese strength in the Admiralties caused organized operations on the part of American forces to cease.

Much to the chagrin of the constantly alert antiaircraft and shore batteries, absolutely no naval or air reaction occurred and only slight harassing fire from an occasional sniper broke the stillness of the tropical nights.

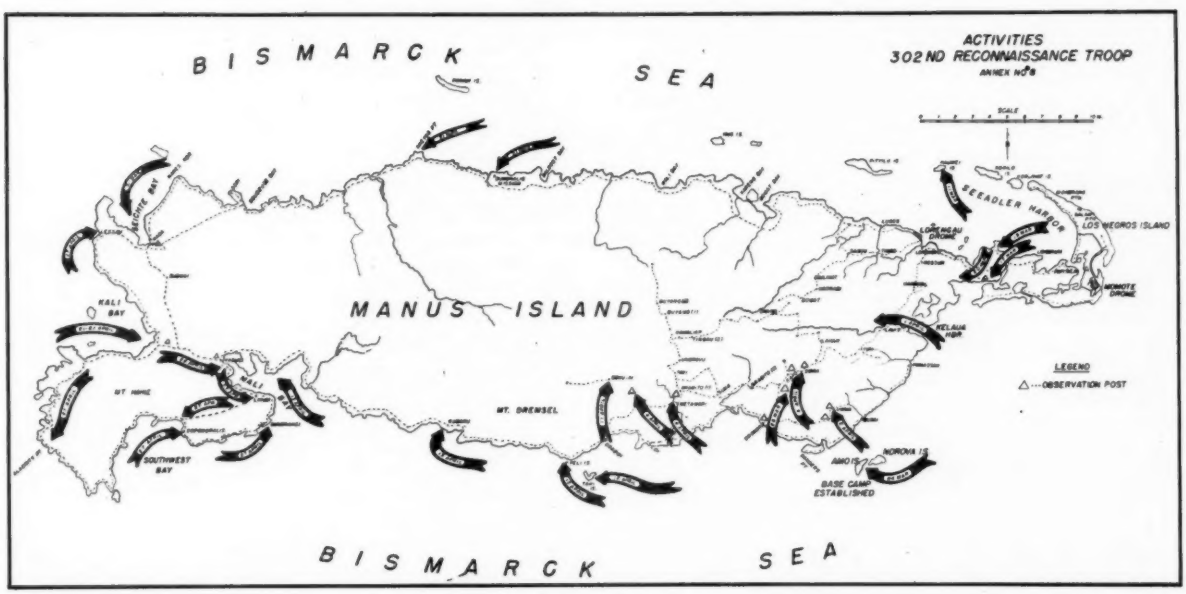
A Jap wandering west from Papitalai offered a good example of the enemy's spirit at that stage. One of the few stragglers left alive on Los Negros was vainly struggling to get to Lorengau, not knowing the fate of his comrades there. He had thrown away his weapon, and wore only a few grenades and tattered clothing.

### Pityilu Island

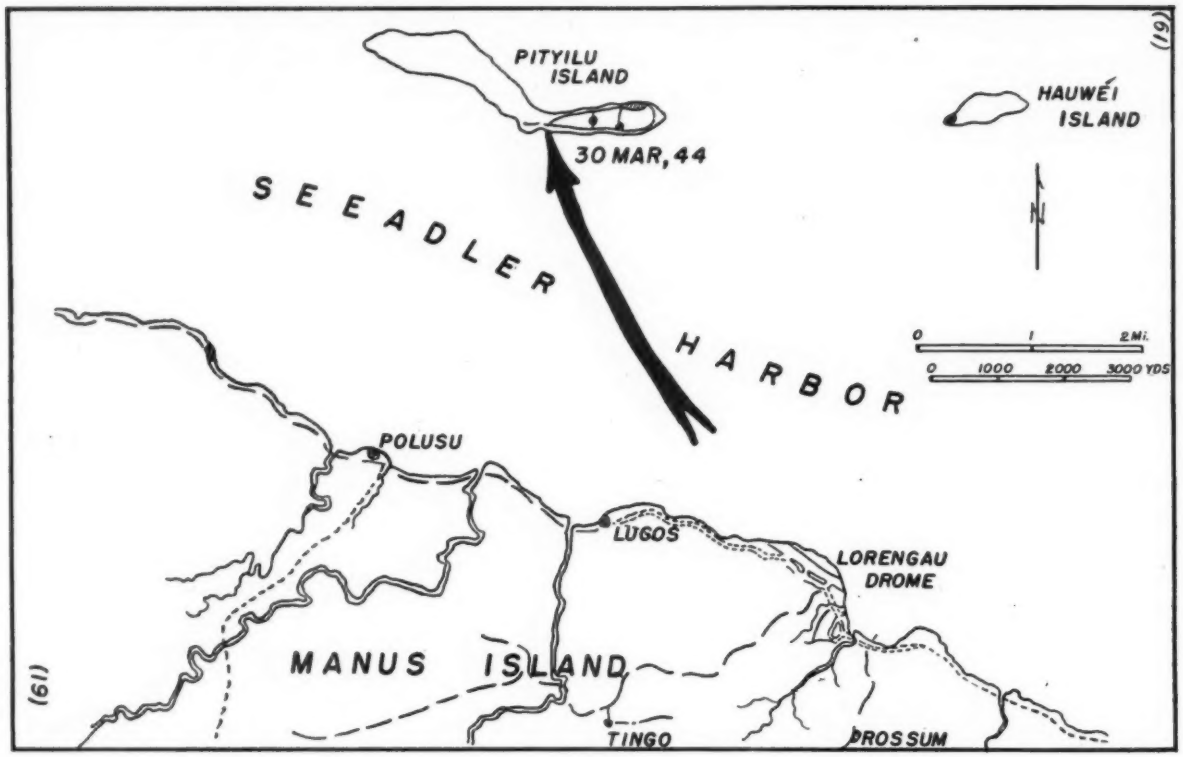
While operations were still in progress on Los Negros and Manus Islands, P-40's had struck at Pityilu Island, the fourth in a chain running west from the northern tip of Los Negros.

On March 24 enemy positions on Pityilu, spotted by artillery liaison planes, had been bombarded by destroyers. Several houses, three barges, two outpost emplacements and a gasoline dump, which burned for two hours, were demolished during the raid.

Pityilu Island was the last of the Los Negros archipelago known to have organized resistance. So at dawn on March 30, the curtain was raised on the 1st Cav-




Map 3




Map 4

alry Division's sixth amphibious landing in the Admiralties Campaign.

Following heavy shelling by warships, P-40's and Spitfires which blasted the landing beach for 20 minutes, the field artillery, firing over water from Lorengau, commenced its powerful bombardment.

The landing on the island's southern coast was made by elements of the 7th Cavalry Regiment. After beaching without opposition, the 7th Cavalry sent patrols west through the wide coconut plantation and moved its main force east through a dense forest.

No contact was made by the patrol to the west, but the main force to the east contacted Japs in the middle of the forenoon and immediately attacked their position. Although the forward movement of the troops was spearheaded by two tanks, the opposition was so determined that the troops withdrew about 100 yards at noon in order to allow an artillery concentration to be placed on the enemy positions.

Immediately after the artillery barrage, the advance was renewed and by nightfall 46 Japanese had been killed and the greater portion of the island occupied. The following day occupation was completed.

### Outlying Islands

A casual observer watching operations from the tip of Moperang Peninsula on April 1 would have thought that the Americans were taking the first of April too literally. In the early morning the "first amphibious operation of its kind" commenced when units of the 12th Cavalry embarked in 18 native canoes, 4 Japanese collapsible boats (captured at Lombrun Point by this same force), and 16 engineer half boats, set out from Los Negros for a landing on Koruniat Island, 500 yards across a shallow reef-strewn passage.

As the first wave prepared to move out from Los Negros the "skipper" of the "fleet"—a squat, muscular native boy standing up in his outrigger canoe—gave the dismounted cavalrymen a touch of nostalgia with his signals. When all 18 canoes were lined up ready to go, this sturdy, coal-black negro raised his arm and lowering it slowly to his side, called at the top of his voice, "Forward . . . hooooooooo!" in true cavalry style.

The coördinated support of land, sea, and air units, which was typical of every landing in the Admiralties, was carried out as usual prior to the landing. The troops landed unopposed and by noon had secured the entire island. Immediately after noon, the embarkation in small boats was repeated, this time from the western end of Koruniat. Paddling across the shallow coral reef, our forces landed unopposed on Ndrilo Island and had the last of the Los Negros chain occupied by nightfall.

This process of securing outlying islands in the Admiralties continued. At 1200 the next day the 2d Squadron of the 12th Cavalry landed on Rambutyo Island, southeast of Los Negros. Preparatory to the landing two squadrons of P-40's bombed and strafed the beach, and three small craft laid down a rocket barrage. The troops had difficulty in landing because of reefs surrounding the coast. The landing craft could not be beached and the troops, plunging in chest-

high water, made their way to the shore through 200 feet of medium surf and over jagged, treacherous coral bottom. By early afternoon the squadron and all its supplies had been put ashore in spite of the back-breaking labor of carrying supplies through the surf.

### Air and Navy

Of these days in the Admiralties, this military record gives only bare, stark, unlifelike facts. A gifted pen would be required to portray honestly, vividly the actions and reactions of men in battle.

When life is reduced to a common denominator by just the whir of a hostile bullet, man is singularly unimpressed, unmoved by words or promises. He demands something more—something solid, something concrete; a knowledge that the power and might of a great nation are behind his every move. Realism, a discernible manifestation of power, is made by the supporting services—the Air and the Navy. That was 50 per cent of the reason that in every operation during the Admiralty Campaign both of these services were used to the maximum; the other 50 per cent, of course, was the great destructive power of these most valuable weapons.

The bald statement, "The naval forces supported the action," appearing in the chronology, is indeed a masterpiece of understatement. When asked regarding the effect of naval gunfire support, the commanding general of one brigade made the laconic reply, "The Navy didn't support us. They *saved* our necks." All commanders firmly believe that especially during the initial phases, the balance of war was tipped in our favor by the superb support rendered by the naval forces. There was no risk that the Navy would not take.

During the initial landing on Los Negros, a hostile 20mm gun commanding the entrance to the harbor was placing particularly devastating fire on the landing craft passing through the narrows. The gun, so well concealed and camouflaged, could not be located accurately. Admiral Fechiteler, in command of the naval task force, quickly gave orders to two destroyers, "Blow that gun out. Take your ships into the shore. I will be responsible for them." The ships went in and the gun went out.

Several days later, the bulk of the naval force was moved to the south. From these positions they laid a heavy barrage on the enemy. So cleverly was this barrage placed and so devastating its effect, that the Japs were forced out of their position right into the waiting hands of automatic fire of the dismounted cavalrymen. And the reports state, "The naval forces supported the action."

Until the commanding general informed higher headquarters that naval support was no longer necessary, destroyers and cruisers were employed constantly. Many of these ships took part in more than one mission daily, some as many as 4.

In addition to destroyers and cruisers, the gunfire of large supply ships, small supply ships, tenders and LST's were used in emergencies. Squadrons of motor torpedo patrol boats—the famed "PT" boats—shepherding the landing craft like a mother duck her ducklings, made swift flashing stabs right into enemy shore positions, reduced to zero enemy barge traffic, and performed many missions of mercy. They removed wounded, and rushed urgently needed supplies, ammunition, and food to heavily engaged patrols working far from their base. And the reports state, "The Navy supported the action."

The Army Air Force gave all the means at its disposal to the support of the campaign. The difficulties and obstacles placed in their path fazed them not at all. The objective area was out of range of their fighter escorts. The weather in the objective often made it impossible to get any aircraft within sight. But they did the impossible. They adapted a few fighters as long range fighter escort. Keeping these fighters in the air continuously, the Air Force convoyed shipping and intercepted enemy aircraft bent on the destruction of small ground forces. On one occasion they intercepted 18 enemy bombers with fighter escort, shot down 11 of them and prevented even a single enemy plane from getting to its target. Of all requests made upon them, only one was cancelled or refused and that because at the last minute a higher headquarters had ordered all

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***"You would have enjoyed the sight of one of our troops returning from patrol today. I had last seen this troop three weeks ago, after it had been out for two days. On that occasion the jungle was thick, it was raining in buckets, and the mud was knee deep. The troopers were carrying 4 days' rations and their ammunition. They had nothing but a poncho, wool-knit sweater, and toilet articles with them in the way of comforts—but, their morale was high, and there wasn't a sour face nor a grumble in the entire outfit.***

***"Yesterday they came off the south end of Manus Island at the end of their three weeks' patrol.***

***"The first glimpse I got of the troop, it was coming down the Lukuli River in native canoes. Never in the world was there a more picturesque sight. Of all the rough, tough, muddy, ragged troops you ever saw, they were it. Yet you have never seen a more cheerful, enthusiastic, happy bunch of men anywhere. Nor was there a set of whiskers among them; nor a rusty weapon. They were as happy as though they were headed for Coney Island. Every one of them had a grin on his face. Anyone seeing them could not fail to notice that each man had achieved one of the most valuable of military qualities—pride in himself and his troop."***

***—Commanding General,***
***2d Cavalry Brigade.***

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aircraft concentrated on a particularly lucrative target of opportunity.

By the end of the campaign, the principle of coördination propounded by all great commanders was brought forcibly to the foreground. As the division commander remarked, "Now we can say that we are truly a team. We have solved the complexities of integration to a nicety. Without either or both the Air and the Navy we would be as much use here as a mute would be to the Brooklyn Dodgers. Down deep, each man knows the value of the support we received. My hat's off to these two services who give you not what you ask but everything they have."

### Mopping Up On Manus

Remnants of the enemy left on Manus Island were pursued relentlessly. The collapse of organized enemy resistance left somewhere between 1,000 and 2,000 Japs on the island. Of this number an estimated 200 were fit for combat. Few retained their weapons, many were wounded, all were starving, and none exhibited an offensive spirit. These stragglers formed, however, a menace to the native population, whose food they stole, and a potential source of harassment to contemplated naval installations. It was imperative that they be assisted to their imperial destiny—to die in combat for their Emperor.

The chase was assigned to the 2d Cavalry Brigade. Vigorous combat patrols from its garrison at Lorengau combed the jungles in the area of Lorengau, and despite the lack of a major contact exacted a terrific toll from isolated groups operating off trails and at night. Systematic extermination became a task predicated first of all on locating the enemy and then rooting him out.

This task was assigned the 302d Reconnaissance Troop, ideally located for the job. Its base was on the flank and front of the enemy's retreat; and so situated, it was able to insert observation posts and patrols all across the Japs' line of flight. Small patrols of the "sneak and peek" variety were used to instill in the Jap a false sense of security. The remnants of the enemy started to reassemble under our direct observation. The resulting reconnaissance and combat patrolling exhibited the finest type of team play between the cavalry and the reconnaissance troop. The reconnaissance troop was the eye, the cavalry was the saber. Coördination between eye and sword was swift and deadly.

Small patrols and observation posts made preliminary contact with the enemy and maintained the contact despite active reconnaissance screens established by the enemy. Even after the patrol's presence became known to the enemy, it was able by the staunch assistance of its native guides to remain in the area and collect information, and then withdraw through the maze of unknown swamps characteristic of the area.

The information from these patrols was relayed immediately to the cavalry and instantaneously put to use. In all this area of central Manus the jungle vegetation is extremely heavy, with observation often limited to a distance of 5 to 10 yards. Time after time the patrols took advantage of this situation to creep in close to the enemy and catch him unaware. Attempts of the enemy to regroup were constantly thwarted.

This coördinated action soon cleared the zone initially assigned the troop for reconnaissance and additional zones were designated. Meanwhile, it became apparent that the groups of enemy trapped and killed in the original zone of operations had been the van of the enemy's withdrawal and that no substantial number of the enemy had penetrated the perimeter of the original zone assigned the reconnaissance troop. The absence of good roads and paucity of developed trails, the broken nature of the terrain and the dense foliage provided innumerable hideouts in the interior. Existing maps at best were incomplete.

Early in May patrols were again sent into the zone first assigned the reconnaissance troop to confirm native reports that the enemy's remnants had indeed begun to group again in this sector. An ambush was immediately established, and contacts made with small enemy groups quickly discouraged any reorganization by the enemy in the area. Natives actively participated in the chase and ambushed many a weary Jap. During this period stalking Japs on the run became a sporting proposition. Patrols of the cavalry brigade seemed to relish the game they were playing. On one occasion a native reported to a cavalry patrol that three unarmed Japs were in a native hut to their front. Rather than take unfair advantage of the defenseless enemy, three members of the patrol dropped their arms, moved into the hut with drawn knives, and in hand-to-hand combat killed the three enemy. This second phase of closely coördinated reconnaissance and combat patrolling had again smashed every attempt of the enemy to reassemble his forces.

After the Admiralties Campaign had "officially" ended, there remained several hundred enemy stragglers to be disposed of. Information indicated that the enemy was again planning to assemble and had in fact started to drift to the area selected. Probably no units have ever had more realistic and extensive training in scouting and patrolling against the enemy in jungle terrain than was afforded the newly arrived replacements of the 2d Cavalry Brigade on Manus Island.

During this period of mopping-up operations particular attention was given to stealth, observation, terrain appreciation, reporting of information, and the development of physical fitness by a series of extended patrols with a minimum of equipment.

Opportunities for training under realistic circumstances were exploited, and when the replacements were withdrawn to their garrisons, they were no longer green, inexperienced troops but troops hardened in the field, trained by veterans, and confident of their ability to stand up to the enemy in any circumstances on any field to which the division might next be called.

"THE NAVY DIDN'T *SUPPORT* US. THEY SAVED OUR NECKS," said one cavalry brigade commander in the Admiralties. Above, men of the 1st Cavalry Division watch naval aircraft overhead as they speed toward the beaches of Leyte Island in the Philippines. Below, troops watch Navy planes and ships' guns blast "path" for Leyte landings.

Official U. S. Coast Guard Photos

Members of the 8th Cavalry wade into the water off Manus Island in operation similar to that described here.

# A Cavalry Troop on Los Negros

## In Unique Operation

*by Colonel Marion Carson*

DURING landings on Los Negros a troop of cavalry successfully reduced an enemy position of three bunkers by making envelopment through shallow water along the shore.

### General Situation

Between the south shore of Los Negros Island and Lemondrol Creek 500 yards to the north, the Japs were fighting a delaying action by use of small groups in bunkers, with snipers operating between the bunker positions.

A squadron of cavalry, engaged in clearing the enemy from this area was disposed as follows:

One troop in support of the advance west was approximately 200 yards in rear of the leading elements. Another troop was clearing the enemy from the high ground just west of the swamp. A third troop was advancing west along the south coast with its left flank on the shore line. The squadron's weapons troop had a dual mission. It was to support the advance to the west and at the same time be prepared, upon call, to assist the troop to the north.

As the third troop advanced west along the south shore, the leading scouts suddenly received fire from a position to their front (see sketch). The advance was halted and a reconnaissance promptly made.

### Terrain and Fortifications

The reconnaissance revealed the following information:

1. To the front there was a swamp 30-60 yards inland from the shore and roughly paralleling the coast.

2. The dense vegetation along the coast was such as to permit the approach of individuals especially adept at traversing dense growth, but it was doubtful if a platoon, or even a squad, could get through it without detection.

3. A protective reef off-shore made the water along the beach quite smooth, and the beach sloped off gradually to shoulder depth about 10 yards out.

4. Three enemy bunkers were located in the area—the southernmost, about 15 yards inland from the shore. To provide passage for Jap forces, considerable underbrush had been cleared away from the area starting about 5 yards inland and running to within a few yards of the swamp.

5. The bunkers, which were old and well concealed by growing vegetation, were covered with one thickness of coconut logs and from one to 3½ feet of dirt. With slits on the east and west sides only, they would make a frontal attack a costly operation.

6. It would be impossible to negotiate quietly the swamp to the north of the bunkers, and to send an enveloping force by way of the ridge to the north would require more time than remained before dark.

### Envelopment

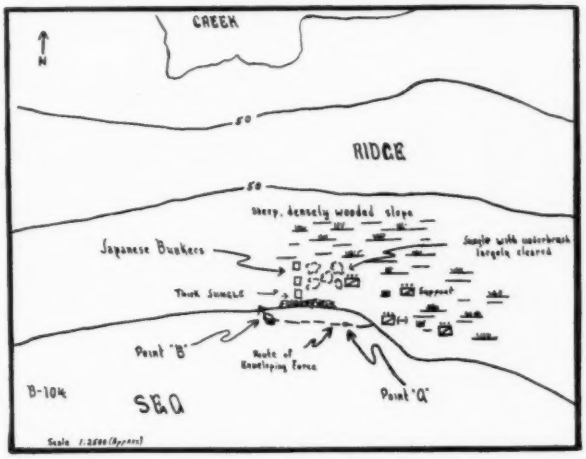
The troop commander decided to use one platoon in a holding attack in front of the bunkers, send one platoon of two full-strength squads through the water along the beach to a position in rear of the bunkers, and use the third rifle platoon in support of the right flank. Initially, the 60mm mortars and the LMG platoon would assist the holding attack. The mortar units, which were to be prepared to support the en-

veloping force, carried a sound-powered telephone with wire paid out from shore at the point where the platoon entered the water. An observer from the squadron weapons troop also accompanied the force.

The enveloping force waded out into the water until only their heads and shoulders were exposed. Whenever practicable, weapons and ammunition were held above the water, but all were immersed at some time during the operation.

In the water, with their helmets and weapons, the members of the platoon presented very small unprotected targets. As they advanced they received small-arms fire from at least the southernmost bunker while passing the point marked "A" (see sketch). Unless the enemy withdrew from the protection of their bunkers, however—and this they did not do—their field of fire was limited to a very small area. Through the fire-swept zone, the soldiers kept their heads under water. Individuals reported that they could see some of the bullets hit the water, slow down and drop to the bottom.

When the platoon reached the point marked "B," the Japs started withdrawing from the bunkers and moved west along the coast within view of the mortar observers. The observers called immediately for mortar fire in front of the retreating enemy. When it fell several of the enemy were seen to stop and start back toward the enveloping force. The observers then shortened the range and placed a salvo in the midst of the group. Some survivors again started west. Then the range was increased, and again the salvo fell among the panic-stricken defenders. The area was later searched and a dozen of the enemy was found dead.




**Situation**

The troop suffered no casualties during the operation.

## Conclusion

This operation demonstrated the necessity for initiative in taking advantage of favorable factors and overcoming those less conducive to success in jungle maneuvers. The dense vegetation along the shore permitted excellent reconnaissance to be made, and largely screened the movement of the enveloping force through the water. Surprise would no doubt have been lost in attempting a land envelopment to the north and would have had to be delayed until the next day. The plan which was adopted was the only one which had a reasonable chance of prompt success with a minimum number of casualties.

**Troop G, 8th Cavalry, 100 yards from Jap positions near Lorengau village. March 18.**

ON a hot April day in 1942 a Japanese messenger made contact with the guerrilla forces deep in the steamy jungle of Timor. His purpose was to deliver the following letter to Lt. Colonel N. L. W. van Straten, Commander of the Dutch, Indonesian and Australian guerrilla fighters on the wild East Indian island.

"Japanese Army
Atemboea: April 12th, 1942

"Dear Leut-Kolonel, Kapiten and officers of
Dutch Army:

"Now as you all know, the war of Nederland East Indies finished. Leut-Kolonel Detiger and his men were willing to receive the treatment of Japanese Army. You must be short of food now, you have to sleep in the fields or among the mountains. All of Dutch men except you and the Indonesia in N.E.I. think, for the Dutch and Australian soldiers to surrender is rather better than to hide among the mountains. Do you think it is able for you to resist longer till the hopeless help comes? Are you waiting for it?

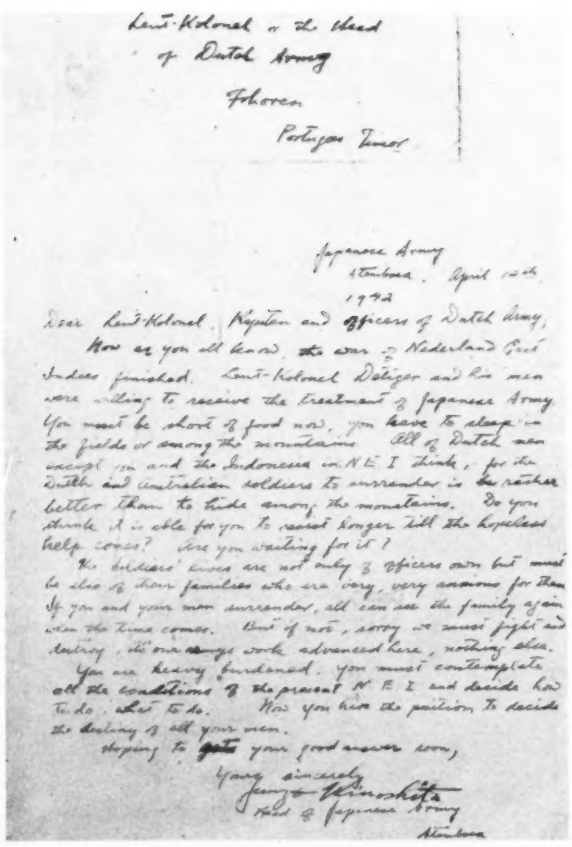
"The soldiers' lives are not only of officers own but must be also of their families who are very, very anxious for them. If you and your men surrender, all can see the family again when the time comes. But if not, sorry we must fight and destroy, it's our armys work advanced here, nothing else.

"You are heavy burdened. You must contemplate all the conditions of the present N.E.I. and decide how to do, what to do. Now you have the position to decide the destiny of all your men.

"Hoping to get you good answer soon,
Yours sincerely,
JUNZT KINOSHITA,
Head of Japanese Army,
Atemboea.

# GUERRILLAS OF H

## *by Selden Menefee**


Leut-Kolonel or the Head
of Dutch Army
Fohoren
Portugese Timor

Japanese Army
Atemboa. April 12th
1942
Dear Leut-Kolonel, Kapiten and officers of Dutch Army,
Now as you all know, the war of Nederland East Indies finished. Leut-Kolonel Detiger and his men were willing to receive the treatment of Japanese Army. You must be short of food now, you have to sleep in the fields or among the mountains. All of Dutch men except you and the Indonesia in N.E.I. think, for the Dutch and Australian soldiers to surrender is rather better than to hide among the mountains. Do you think it is able for you to resist longer till the hopeless help comes? Are you waiting for it?
The soldiers' lives are not only of officers own but must be also of their families who are very, very anxious for them. If you and your men surrender, all can see the family again when the time comes. But if not, sorry we must fight and destroy, it's our armys work advanced here, nothing else.
You are heavy burdened. You must contemplate all the conditions of the present N. E. I. and decide how to do, what to do. Now you have the position to decide the destiny of all your men.
Hoping to get your good answer soon,
Yours sincerely
Junzo Kinoshita
Head of Japanese Army
Atemboa

LT. COLONEL VAN STRATEN studied the curious missive, then showed it to the members of his staff. They talked awhile, laughed grimly, then answered General Kinoshita by blowing up a convoy of Japanese military vehicles with land mines.

The guerrillas' position was quite hopeless, and they knew it. The Japanese had come early to Timor—had landed there 30,000 strong in February, 1942. This was part of the Jap move to encircle and cut off the main Allied forces in the Indies—a move that succeeded by making it impossible to fly into Java the fighter plane reinforcements assembled in Australia.

One by one the Japs seized the main air bases around strategic Java—Amboina (which fell after three weeks of fighting), Timor, Bali, and Southern Sumatra. The Netherlands Indies Air Force had been expended recklessly in the defense of Singapore and Macassar Strait, and only a few old flying fortresses without fighter cover were left to defend Java. When, in the Battle of the Java Sea, the heroic but outnumbered Dutch and American vessels were crippled or sunk by the much larger Japanese forces, the way to the heart of the Indies was clear, and Java fell to the Japs on March 8, 1942.

But as Americans and Filipinos continued resistance in the Philippines, so on every major island in the Indies remnants of the Dutch and Indonesian forces continued the fight. On Timor the resistance lasted almost a year. Before the Japanese came, several hundred Indies soldiers had landed on the Dutch half of the island (the southern and western end), and sev-

*Director, Washington Office, Netherlands Information Bureau.

Official Netherlands Photo

**Men of the Royal Netherlands Indies Army in Dutch New Guinea prepare to enjoy a wild pig. After the huge Japanese force landed in the Indies in February, 1942, remnants of the Dutch and Indonesian forces took to the hills. As a result of wounds, malaria, lack of medical care and inadequate food half of the guerrillas died during the first year.**

# THE INDIES

eral hundred Australian Commandos had taken over the defenses of Portuguese Timor, to the northeast.

When the huge Japanese force landed, these two groups took to the hills. The Japanese gradually drove them back farther and farther into the interior, in two narrowing circles, until the Dutch and Australian forces finally came together and set up stationary bases. From their hidden lairs they frequently swooped down on Japanese patrols by day and harassed local garrisons by night. Twice they were completely scattered by heavy Japanese attack, but both times they came together and resumed the fight.

As a result of wounds, malaria, lack of medical care, and inadequate food, half of the guerrillas died in the year of fighting. The wonder is that they survived as well as they did. The Australians were specially trained jungle fighters. About 60 per cent of the Netherlands Indies men were trained soldiers; of the remainder many had been recruited into the N.E.I. militia for "limited service" only.

The Japanese employed every possible device to trap the jungle fighters or weaken their morale. They appeared in Dutch uniforms pillaged from an Army store in Kupang (the capital of Dutch Timor), or decked out in the most fantastic native disguises, but without success. The little band fought all the harder. With the aid of the loyal Timorese natives, whom the Japanese had antagonized by cruel treatment, the guerrillas held out.

The Japanese had one advantage over the guerrillas, however. They had modern equipment, and they used it. In one of the fiercest battles ever fought on Dutch Timor, the Japs had to bring up tanks and armored cars in order to win. As one Dutch lieutenant said later, "We had no tanks—no chance."

For 69 days after the Japanese invasion of Timor the guerrillas were completely out of touch with the outside world, and were given up for lost. Then the Australians managed to rig up an emergency radio transmitter out of part of an old radio set they had discovered in the jungle, scraps of wire, and kerosene tins. They had no power, so they went out at night and stole the generators from two Japanese trucks. They fashioned a hand crank to operate the generators, and were able to store up enough current to operate the transmitter for 2½ minutes every 12 hours. The weird contraption was named "Winnie the War Winner" by the Australians, who brought it home with them later on.

Thus it was that a weak signal was eventually heard in Australia, 400 miles away. But the guerrillas had no receiving set with which to check whether or not they were being heard, so they stole a portable receiver from the Japanese. After contact had been established, the guerrilla radio engineer sent this thrilling message in Morse code: "Force intact. Still fighting. Badly need boots, money, quinine, tommy gun ammunition."

After a few days the guerrilla radio man got a reply, asking that the force identify itself. After all, how was Australia to know that the radio message was not just a Japanese ruse? The impatient men on Timor forthwith supplied plenty of proof of their identity, principally in the form of middle names, street addresses, and names of sweethearts in Australia—things the Japanese could not possibly have known. An Australian destroyer then set out to rescue the party, but was lost. It was stranded on a rock on the unlighted coast of Timor during a very tricky night operation. The Japanese were thus put on their guard.

Then began a battle of wits, with both sides playing for time. A few guerrilla replacements were brought in by small boats, which were always heavily bombed by the Japanese on their return trip to Australia, part of

Australian Information Bureau

**With the arrival of Allied troops in Hollandia. A group of two hundred Indonesians was brought through the jungles of Japanese occupied territory to the safety of liberated territory by Dutch New Guinea police. Photo shows some members of the Dutch New Guinea police force. Long swords, shown here, are their favorite weapon.**

which had to be made by daylight. Supplies, including drugs, clothing, and shoes, were also smuggled in from Australia. The shoes were found unsatisfactory for jungle wear. The broad-footed Indonesians especially had trouble; they had to wear size nines in place of the wider size fives and sixes to which they were accustomed. Even so, the city-style shoes lasted less than a month in the jungle.

There were two medical officers with the force, but they had lost all their equipment. When new supplies from Australia were dropped by parachutes, Japanese observers located the assembly spot and sent bombers to destroy the thousands of dollars' worth of much needed equipment, while Dutch and Australian officers looked on helplessly from the surrounding hills. Despite this disappointment and the ravages of malaria and dysentery, however, the guerrillas somehow managed to keep going. One Indonesian sergeant carried a machine gun bullet for three months, until he reached an Australian hospital, and survived to disprove all predictions of his early demise.

Finally, after one boatload with about 25 replacements for the beleaguered guerrillas was sunk and all hands lost, it was decided that the troop must be evacuated. The Dutch destroyer *Tjerk Hiddes* set off under cover of an umbrella of Australian Kittyhawks and Beaufighters. She arrived off Timor on a rainy night. The shore was not visible but soundings indicated that land was near. According to previous arrangements made by radio, the Dutch captain started looking for a wood fire on the beach. When no fire was seen, the ship briefly flashed a blinker toward shore and discovered that it was less than 500 feet away!

After a short wait, the guerrillas began to come aboard, and before the night was over the destroyer's rubber boats had taken 200 Dutch and 100 Australian soldiers (of which 51 were sick or wounded) and 30 Portuguese women and children off the island. The evacuees said that all attempts to build beach fires had failed, and anyhow, Japanese patrols were only 4 miles away. Fortunately, the Japs had not seen the blinker.

The *Tjerk Hiddes* left provisions for those still on the island, and later two more trips were made to rescue remnants of the guerrilla band, Portuguese civilians and friendly native Timorese whose lives were in danger from the Japanese. Needless to say, the guerrillas were feted royally in Australia, and after a period of recuperation, they set about giving training in jungle fighting to new Dutch forces formed to help liberate the Indies. The former guerrilla chieftain, now Major General van Straten, was awarded the Military Order of William from Queen Wilhelmina—a decoration roughly equivalent to the U. S. Congressional Medal of Honor—for his defense of a strategic airport on the north coast of Timor against heavy odds when the Japanese first came, and for his subsequent leadership of the jungle fighters. He is today Chief of Staff to the Commander in Chief of the Netherlands Indies Army. At this writing he is in liberated Holland, recruiting men with previous military training for the fight against Japan. The new recruits will be sent to Australia for a physical build-up, jungle training and acclimatization. Already units of the new Dutch fighting forces have served well in New Guinea as military scouts and guides with the Netherlands Indies Civil Administration, under General MacArthur's command.

As the liberation campaign has proceeded, contact has been made with other bands of guerrillas. In New Guinea last September Allied forces rescued 25 men and a girl who had fought a bitter guerrilla campaign against the Japanese on the Vogelkop Peninsula for 2½ years. They were the survivors of a band of 53 who fled from Manokwari when the Japanese landed there in April, 1942. In the original party were 51 Dutchmen and Indonesians, most of them members of the Nether-

**Indonesian soldiers of the Free Netherlands East Indies train in Australia. Many native Indonesians have made valuable guides for Allied scouting parties and patrols.**

Australian Information Bureau

Official Netherlands Photo

**Patrols of officers and men of the Royal Netherlands Indies Army explore the untrodden jungle interior of Dutch New Guinea and prepare for attacks on the Japanese. It is rough going in New Guinea's jungles; the "roads" are not well paved.**

lands Indies Army, and the wife and the 16-year-old niece of one of the Indonesian officers.

This group had fled southward into the mountains, then west to the Amber Baken coastal area 60 miles west of Manokwari, where they found friendly natives. Here they were joined by three Americans and several Filipinos who had escaped from Mindanao, 600 miles away, in a sailing canoe. The little troop, though ravaged by illness, waged an aggressive guerrilla campaign throughout 1943. They killed about 40 Japanese and blew up installations on a number of Japanese bases. The biggest raids were on the big Japanese base at Sorong, in March 1943, and on the ship *Daiti Maru,* which was anchored off Manokwari at the time.

Disaster overtook the party last May when an unfriendly native guided the Japanese to the camp. The guerrilla leader, the elder of the two women, the two surviving Americans, and others were killed. Thereafter the remnants of the force eluded the Japanese by forced marches and by hiding in the jungle. When American forces arrived at Sansapor last August the leader of this guerrilla band, Sergeant Kollilink, sent a message to the masking, not for rescue, but for supplies. "Two of my soldiers have malaria," he wrote, "and we have no quinine or aspirin. We also need tobacco." He offered his men as guides, and suggested that with the aid of 100 well-armed Americans they could "mop up" a great number of Japs. But instead, the party was evacuated to a Dutch hospital in liberated New Guinea.

It is known that guerrilla activity has persisted to this day on other islands of the Indies. Although detailed information must wait upon liberation, the Japanese radio itself has made some revealing statements. In November 1943 it told how defenses were being erected against the guerrillas in southern Borneo. In February, 1944, it claimed that 1800 Dutch and Indonesian guerrillas had been arrested in the mountains of Sumatra—an admission of large-scale fighting. Three months later, on May 5, a broadcast from Padang, Sumatra, said that the Achinese people, on the northern tip of Sumatra, were being trained to resist the attacks of Dutch guerrillas. The native speaker told how the Japanese had play-acted the part of guerrillas, but the Achinese with their swords and bamboo spears attacked them so fiercely that "the practice had to be called off."

Dutch air, sea and ground forces are all being groomed today for active participation in the war against Japan. The Netherlands Indies Army Air Force, operating out of bases in northwestern Australia, has pounded Japanese bases in the occupied Indies almost unceasingly for the past two years. Dutch, Negro and Javanese troops from Surinam (Dutch Guiana) have recently arrived in Australia, where they will soon be joined by Dutch officers trained in U. S. Army and Marine camps, and men from liberated Holland, to receive final training from the veterans of guerrilla warfare in the Indies.

Last but not least, Indonesians in the liberated areas are flocking in to join the fight against the Japanese. Angered by starvation and brutality, even the kindly, peace-loving Javanese want to fight their oppressors wherever they have been liberated. Already Papuan natives in New Guinea have served well in capturing stranded Japanese soldiers and killing enemy stragglers who tried to loot native villages in New Guinea. As the Indies campaign proceeds, more and more help will be received from the Indonesians.

Because of the accident of geographical position, it so happens that the most warlike peoples will be liberated first, to join the fight in areas still occupied. If Mountbatten lands in western Sumatra he will find fighting allies there; and in the east, the forces under General MacArthur are likely to come first to the Ambonese and Manadonese—the very groups who were the backbone of the Indonesian armed forces before the war.

Thus Allied forces in the southeastern Asiatic theater will probably gain increasing speed as they roll the Japanese back toward Java, key to the resources of the Indies. Judging from the experience in New Guinea, however, the final cleanup will be long and painful; but Dutch and Indonesian armed forces will be in a position to bear more and more of the weight of this campaign as liberation of Holland and the Indies proceeds.

# Jap Doctrine of Armor

by Captain Arthur L. Paddock, Jr., Infantry

A rear view of the Jap model 97 (1937) medium tank. This tank is armed with a low-powered 57mm gun. Newer M97's mount the high velocity M2 (1941) 47mm AT gun.

ALLIED troops engaged with Nipponese forces in the Southwest Pacific Theater have infrequently met with Japanese armored forces. It is believed, however, that, as a whole, Hirohito's tankers use their armor to improve the position and effect of Japanese infantry, at the expense of independent tactical rôles.

The Nips are using at the present time a light armored vehicle weighing from three to four tons, a light tank scaling 10-12 tons, and a medium tank of from 15-18 tons. These are organized into companies and battalions and often into regiments. The regiment is triangular, three battalions of three companies each, with four platoons to the company. Each company has three medium platoons and one light platoon. The company, battalion, and regimental headquarters have three tanks each, one medium and two light. The totals for the regiment are 53 light tanks and 94 mediums. In some infantry divisions, the Japs may also have a single tank company.

Tank-infantry coöperation among Japanese troops, while comparatively uncommon, reflects careful study and seemingly sound doctrine. Tanks with an infantry division of the Nip army are normally used as accompanying tanks attached to infantry units which make the principal attack. They are brought secretly to assembly positions about three miles from the line of departure, where final reconnaissance and attack preparations are completed.

The tank commander confers with infantry and artillery commanders relative to: tank jump-off positions, tank objectives and hour of attack, routes to jump-off positions and subsequent zones of advance, type and size of artillery support and its coördination with the tank attack, plans for meeting enemy armored counter-attack, and signal communications among tankers, artillerymen and infantrymen. On the night before the attack, while the tanks are moving to the jump-off position, the noise of artillery fire and *aircraft flying at low altitudes* conceal the noise of the tanks.

Attack formations aim at obtaining the effect of mass by disposing tanks in several waves across the infantry front. Tanks move forward followed closely at little or no distance by infantry. Artillery supports by fire. It neutralizes enemy antitank guns by fire and smoke.

Use of Jap tanks in China has been just a bit different from what the Jap strategists initially expected, principally because of the peculiar local conditions there. Walled villages are the rule; to attack them, the Jap tank-infantry team sends tanks out ahead to clean up the town's outer defenses, and while infantry closes in to assault range the tanks stand to within machine-gun range and attack exposed defenders on the ramparts. When infantry has entered the town, tanks pass through infantry and again lead the assault. This technique can be used only when there is an absence of antitank weapons.

So far as is known, Jap tanks have never been used on an independent tactical mission. They have been the main force in a frontal holding attack while the remainder of the division envelops a flank, and they have blocked the escape of fugitives through the rear gates of walled towns. It is clear the Nips use their tanks primarily for their armor protection, not for their mobility.

In some cases, notably against the Chinese, Jap tanks have been particularly successful. Witness the attack on Sychowfu in 1938, when Jap tanks executed a wide encircling move and cut rail lines 40 miles from the city.

When Japanese armor is employed in an attack on a walled town, the attacking force is divided into four columns. One column smashes against the front wall, and two columns attack the adjacent sides. The rear wall is purposely left free of attack. Artillery blows holes in the two near corners and infantry enters through these breaches, joins, and, moving through the town, drives the enemy out by the rear. The fourth column, frequently composed of tanks, waits until the enemy is well into the open, sweeps from the flank or waits in ambush and cuts him down with fiendish glee.

Japanese tank platoons have been known to fire smoke missions to cover the deployment of infantry. When the meeting engagement takes place and the enemy has been forced to retreat, tanks push forward, frequently outdistancing the infantry which they had been supporting, to destroy the withdrawing or retreating enemy.

The many cases, however, when Japanese armor has not been successful tip the Nip scales. The Jap has two favorite maneuvers. The first, and least favored, is an envelopment over "impassable" terrain by which he hopes to force a withdrawal because one or both flanks are threatened. The second is what has been called a "filetting" attack. The Jap maneuvers much as one attacks a fish—removing the backbone and the rest falls to pieces. In this, he rushes down an arterial supply route with tanks, closely followed by infantry, on the assumption that by holding the supply route alone he will force the enemy withdrawal. If he gains this end without a fight, he is at a definite advantage. But if he has to fight for it, he has no advantage. He lays himself open to artillery fire, since the dense mass of tanks and infantry in depth with no room for maneuver favors the defender. If the defender is up to it, he may launch a single or double envelopment to destroy the Jap.

Examples of such an attack and how to foil it are numerous. Consider the operations in Kuala Dipang, Malaya, in 1942, against the famous 93d Highlanders; the battle at Slim, Malaya, same year; and the scrap at Matanikau River, Guadalcanal.

The 93d Highlanders lay in the jungles while the Jap tanks drove straight down the road. Then joined with units of a Punjab regiment, the Highlanders successfully attacked the Jap infantry which followed and inflicted losses of seven or eight to one.

At Slim, the Japs were equally unsuccessful, although their tanks pounded straight down the road to a depth of 20 miles.

On Guadalcanal, the arterial highway is the coastal road which was flanked by the sea to the north and the jungle to the south. Twelve Jap tanks, closely followed by an infantry regiment on foot, started down this road. Near Point Cruz, where American troops held important positions, the road goes out across a sand bar a few yards off shore. Only one tank, of the nine that started across this stretch, ever got beyond the sand bar. A single emplaced 37mm gun, later reinforced by three 75mm self-propelled guns mounted in half-tracks, completely destroyed eight tanks as they stopped in close column behind the second tank, which was the first to be hit. The first tank, which got beyond the sand bar, passed the 37mm gun, but it was blown into the sea by one of the 75's which chased it down the beach.

In an attack across a front of about 3,500 yards the Japs may employ three battalions against hostile positions. The tanks are organized on a triangular basis: three platoons per company, three companies per battalion, a total of 45 tanks (probably light) to a battalion.

This organization greatly increases the size of the small Jap unit, generally following German and American principles. Although the Japs are believed to have more than one armored division, it is thought that they will confine their tank operations to support of infantry.

In days to come we may see more of Japanese armor. It is well to know how they are likely to operate, and also that Japanese armor, being greatly inferior to our own, can be stopped by 37, 75, 76 and 105mm shells.

**This Jap Model 95 (1935) tank was knocked out of commission by American Sherman tanks during heavy fighting.**

Sovfoto

**Soviet cavalry moves cross-country, over rivers and swamps, through woods and appears suddenly in the enemy's rear or flank. Men are armed with tommy guns, automatic rifles and pistols. Cavalry has led many rapid advances.**

# Part IV – Tactics and Technique

## *Cavalry Doctrine—Prescribed by U. S.; Applied by Russia*

IT is difficult today to separate the Cossacks from other Red cavalry elements in many respects, but particularly in regard to employment.

Throughout history the Cossacks have influenced Russian cavalry trends. Since 1920, however, the shoe has been on the other foot. The Soviet Government has taken the Cossacks into the Red Army, but unlike the past, the Cossacks are treated just the same as all other Red Army elements. Thus, the organization, equipment and doctrines of employment of the Cossacks are in general those of all the rest of the Red cavalry.

An analysis of the known Russian cavalry battles in this war demonstrates the soundness of prescribed U. S. doctrines for the employment of cavalry. For example:

*"It's (cavalry's) mobility permits it to extend the scope of operation of less mobile ground troops and secure freedom of action for them."* FM 2-15 (Employment of Cavalry), Chapt. 1, par. 5a.

At Taganrog in 1943, the Ingulets River in 1944, and the capture of Focsan in 1944 we have excellent examples of the application of this axiom. Would space permit, many others could be cited. (See Fig. 1.)

One of the soundest and most authoritative articles on Red Army cavalry was writen by Colonel General Gorodovikov in the July-August 1943 CAVALRY JOURNAL. General Gorodovikov's article was based on an intimate knowledge of the employment and combat experience of Red cavalry. Much has been written on Russian cavalry successes, but too few authors have been able to include data on its mistakes. General Gorodovikov presents both sides, and from what he mentions, Russian combat experience confirms the soundness of U. S. cavalry doctrines. Compare these quotations from his article with one from U. S. Field Manual 2-15:

> "Sometimes (separate cavalry) divisions were given to army corps or to army commanders to carry out assignments of secondary importance. . . . This method of using cavalry seldom if ever brought positive results. Scattered cavalry quickly lost its hitting and staying power."
>
> ". . . and thus its (Gen. Kriuchenkin's corps at

# ARMY COSSACKS

## by Major Robert B. Rigg, Cavalry

Eletz) mission in the first stage of the operation was successfully filled. At the next stage the cavalry became engaged in . . . area where numerous inhabited points were solidly fortified and held by substantial hostile forces. The corps became involved in a series of indecisive actions and was tied down to the same area for several days."—General Gorodovikov.

*"Its (cavalry's) main strength must not be dissipated through indiscriminate detachments nor sacrificed through prolonged performance of missions which belong more properly to other arms."* FM 2-15, Chapt. 1, par. 5a.

If the American officer finds the study of FM 2-15 a little dull, let him turn to the more authoritative accounts of Red cavalry battles and compare the lessons learned in them with prescribed principles of employment of cavalry. In Russian battles he will find more than enough evidence to document, with modern combat experience, the pages of FM 2-15. (See Figure 2.)

### Aggressive Action

*"Cavalry seeks decisive results through rapidity of maneuver and powerful surprise attacks upon weak points of hostile dispositions. It must be imbued with the spirit of the offensive."* FM 2-15, Chapt. 2, par. 6a.

In the briefest terms, the Cossack combat technique is no more than the application of the above. They place great emphasis on offensive tactics, and they train for aggressive action. This is particularly noticeable in the squadron and regiment, where these tactical subjects are considered most important: knowledge and use of terrain; reconnaissance; small battle technique; damaging and destroying railways, roads, bridges, and artillery pieces; damaging and repairing telegraph and telephone lines; communications, duties of mounted messengers and messenger relay system; attacking enemy columns; night raiding; surprise attacks and ambushes; and the *lava* tactics.

Cossacks are simply *good* cavalrymen who fight with offensive and opportunistic spirit. Their aggressiveness and tenacity, guided by able leadership, produces successful cavalry.

### Reconnaissance

Cossack cavalry is not employed as a reconnaissance force, as is the case with present U. S. cavalry. Their reconnaissance is strictly for themselves, although they often perform the scouting when they are organized in the tank-cavalry combat team.

Cossack audacity is usually an asset for missions they

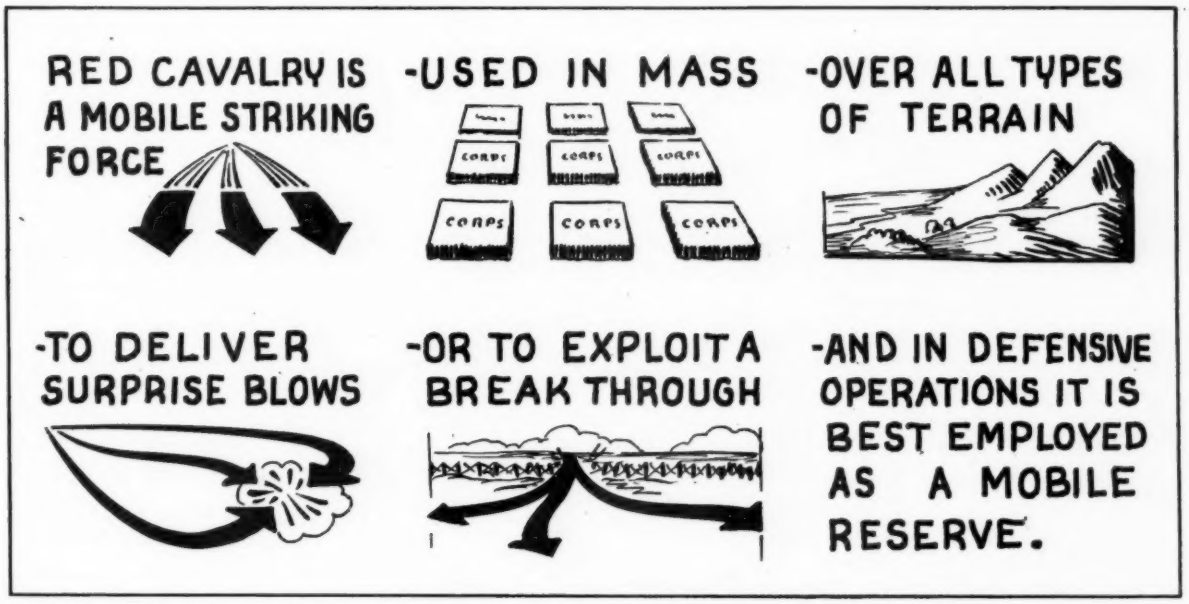

RED CAVALRY IS A MOBILE STRIKING FORCE
-USED IN MASS
CORPS
-OVER ALL TYPES OF TERRAIN
-TO DELIVER SURPRISE BLOWS
-OR TO EXPLOIT A BREAK THROUGH
-AND IN DEFENSIVE OPERATIONS IT IS BEST EMPLOYED AS A MOBILE RESERVE.

**Figure 1. Another battle function of cavalry is the seizing and establishing of bridgeheads. The battle of Baranowicze (July 1944) is a good example of such an action. General Pliev's Kuban Cossack corps fought its way for 60 miles in a period of less than two days to outflank the enemy and establish an important bridgehead over the Nyeman River.**

> **"In defense, the heavy machine guns, together with submachine guns and antitank weapons, are the basis of cavalry dismounted action."**
> **—*Red Army Combat Regulations for Cavalry*, Chapt. I, par. 10.**

receive, but sometimes they let their overenthusiasm and daring carry them away. General Gorodovikov also cited this, and it has been a recognized Cossack weakness. Cossacks, seeking to gain surprise, have sometimes attacked too hurriedly, only to be later surprised themselves. In most cases such failures are the result of a lack of reconnaissance, and for that reason the Red Army is continually emphasizing its importance.

### Cossack Lava

As already described by Mr. Nicholas Corotneff in his article, "The Tank-Cavalry Team,"[1] *"Lava* does not represent a formation but a tactical action of cavalry." The author can add little to Mr. Corotneff's already complete treatment of the subject, but the essence of Cossack Lava tactics are embodied in the following paragraph from an old Cossack field manual:

> "Lava consists of different maneuvers against the enemy for the purpose of, harassing him from the front, flanks and rear, either forcing the enemy to conduct a series of separate battles, luring him into making tactical mistakes, or drawing him out so as to subject his troops to attack by other units."

By the *lava* the Cossacks endeavor to seize the initiative immediately and place the enemy in a disadvantageous position. *Lava* as practiced by the Cossacks has the immediate effect of confusing the battle issue to the enemy. Cossack units have often used their full strength against the hostile force; then withdrawing part of this force so as to "draw out" the enemy, have shifted their strength to the enemy's flanks and weaker points. In this fashion the Cossacks dominate the action, for they lead the enemy into maneuvering to suit them. The climax is usually an attack by the Cossacks (or non-cavalry units as well) on the weaker elements or flanks of the hostile unit.

[1]January-February, 1944, Cavalry Journal.

### Raiding

Although the Russians adopted the word "raid" from the Americans, they have given it a broader meaning than the U. S. official definition, which is *"sudden attack usually by a small force having no intention of holding the territory invaded."* The author has been told by Red cavalry general officers that they apply the term "raid" to: operations of all types in enemy rear areas[2] and long outflanking cavalry maneuvers which end up in the hostile rear or extreme flanks. They go on to state that Russian cavalry raids are very often for the purpose of *holding* the territory invaded. For example, in seizing an enemy strong point or town, cavalry will often outflank the frontal defenses and strike to the rear; this calls for infantry and other arms bearing the frontal assault. Cavalry's role in such an operation, if it strikes in rear of the strong point, is called raiding by the Russians. Most tank-cavalry team maneuvers are also termed raiding. From a military standpoint Cossack raids can be divided into two general categories, as follows:

[2]The Russian front should not be erroneously regarded as a single line. More than often it is a series of scattered units and strong points organized between terrain features; this makes for maneuverability by both sides.

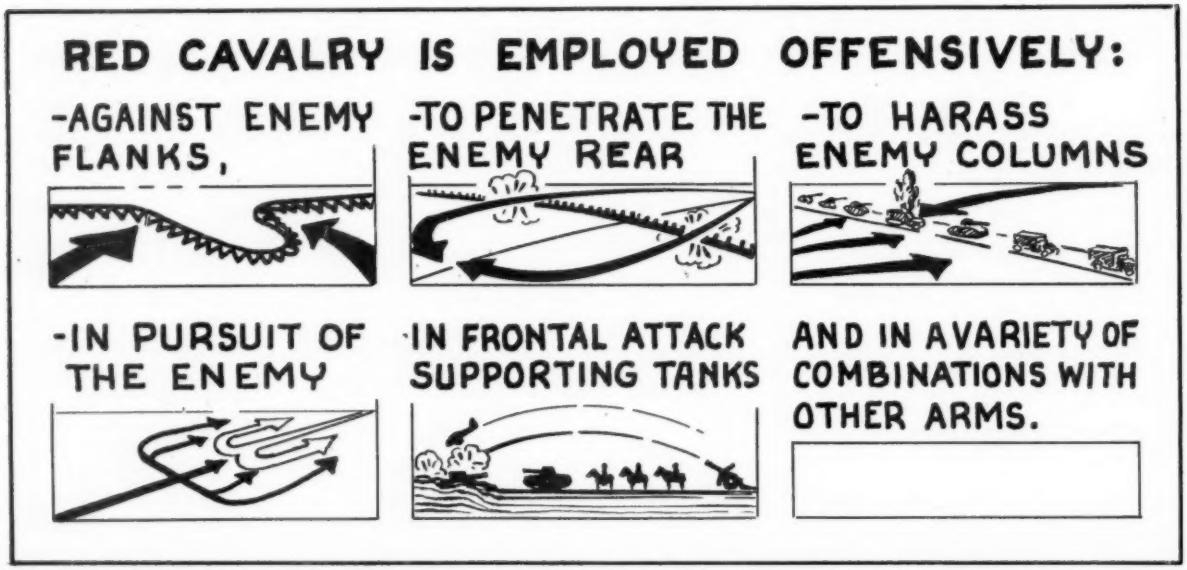

RED CAVALRY IS EMPLOYED OFFENSIVELY:
-AGAINST ENEMY FLANKS,
-TO PENETRATE THE ENEMY REAR
-TO HARASS ENEMY COLUMNS
-IN PURSUIT OF THE ENEMY
IN FRONTAL ATTACK SUPPORTING TANKS
AND IN AVARIETY OF COMBINATIONS WITH OTHER ARMS.

**Figure 2. Red Cavalry is regarded primarily as an offensive arm. It is a highly mobile force, equipped with modern arms.**

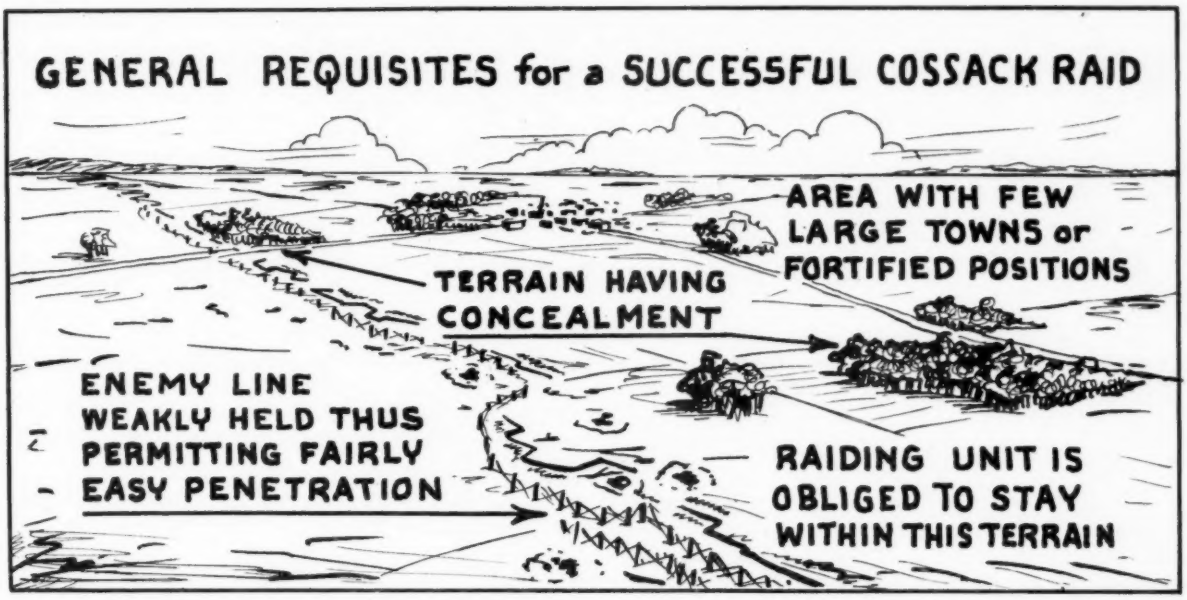

GENERAL REQUISITES for a SUCCESSFUL COSSACK RAID
AREA WITH FEW LARGE TOWNS or FORTIFIED POSITIONS
TERRAIN HAVING CONCEALMENT
ENEMY LINE WEAKLY HELD THUS PERMITTING FAIRLY EASY PENETRATION
RAIDING UNIT IS OBLIGED TO STAY WITHIN THIS TERRAIN

**Figure 3. The raiding plan must include a preliminary air reconnaissance and map study to determine these requisites.**

| SIZE | OBJECTIVES | SCOPE |
|---|---|---|
| 1. Regiment[3] or less | Local enemy CPs; artillery or AT batteries; small relatively undefended garrisons in enemy rear, and the capturing of prisoners. | Local, generally limited to about 15 miles in depth and lasting 1 to 3 days. Many are night raids only. |
| 2. Corps[4] | Retreating enemy columns; large CPs; supply or signal installations; lines of communication; garrisons or enemy strongpoints in rear of MLR, plus targets of opportunity. | Usually limited to 30 miles in depth with duration of from 3 to 14 days.[5] |

At best, raids by smaller units only supplement local actions, and one of their main values is their temporary effect on enemy morale. In all their raiding the Cossacks count heavily on creating panic and confusion behind the lines and they maneuver with this in mind. It is very easy to overestimate the value of small raids. The logistics of supply restrict all raiding, for even the smallest raiding units must carry their own forage, ammunition, etc.

The chart (see Fig. 3) lists the requisites for a successful raid. The ideal area is one where there are few roads, although an area with an extensive road net can be very suitable for Cossack raiding under conditions of mud or snow which handicap enemy armored units. In enemy rear areas lacking in heavy or well-organized defenses, very often the Cossack raiding procedure is to go right into an attack from the approach march. There is an element of risk to this, but the Cossacks feel that the advantage of surprise by very sudden and unexpected attack far outweighs the advantage gained by a thorough, local reconnaissance which would probably alert the enemy. It does happen, therefore, that Cossack units, particularly the smaller ones, will attack limited objectives without much preliminary scouting if their previous information has indicated that the area is not too well defended or organized. This only applies to actions in *rear* areas.

Red cavalry raiding, as performed today, is no longer an insignificant practice, and even within the space of this war Soviet raids have increased in size and scope. Compare the very famous and successful raid made by General Dovator's Cossack Corps in 1941 with that of Lt. General Pliev's Cossack Corps in 1943 wherein his unit killed, wounded or captured 5,000 German soldiers, destroyed 18 tanks, 36 pieces of artillery and 511 motor vehicles in addition to taking 18 artillery pieces, 1,000 vehicles and miscellaneous other equipment. This raid was carried out on the Dniester Steppe and was very widely publicized in the U.S.S.R.

One unit of Lt. General Sokolov's VI Guard Cossack Cavalry Corps was on a 135 day raid and fought behind the enemy lines most of that time. Elements of this corps, containing both Kuban and Ural Cossacks, have participated in a great many other raids, an outstanding one of which was in the Rovna-Dubno region in June, 1944.

[3]Such raiding units rarely include tank support.

[4]Either W/ or W/O mechanized units attached, depending on the season, terrain and objectives.

[5]Raids lasting longer must rely on established lines of supply and thereby begin to go beyond the realm of true raiding.

As a normal thing raiding is and should be limited in depth, but one Cossack unit fought a battle at Valiuka (1943) when they were 150 miles behind the enemy's (MLR) main line of resistance.

In January, 1944, small Soviet cavalry raiding parties infiltrated well into German rear areas and assembled at a prearranged point. After organizing they attacked a local enemy garrison, and later cut the highways leading south and southwest from Mosyr and Kalinkovichi.

An example of a very successful tank-cavalry raid occurred near Perekop and Aksinia Nova. Red Army units operating from Meritopol did much to divert enemy efforts behind the lines and Soviet cavalry action. There greatly assisted the Russians in clearing the enemy out of the whole of North Crimea.

### Mounted Attacks

The Cossacks regard themselves more as cavalry than as mounted infantry, and they think in terms of *cavalry* tactics. This state of mind has led them to apply mounted attacks wherever possible.[6] The relative frequency (for this age) of Cossack mounted attacks has in part been due to the fact that their commanders are quick in recognizing situations and opportunities which lend themselves to attack mounted.

The tenor of the present day Russian cavalry approach to modern battle is well illustrated by their regulations covered in Chapter I, *The General Basis of Military Operations.*

> **"Owing to the strength of modern fire power, cavalry is often obliged to go into action in dismounted formations. In cavalry tactics the dismounted formations must contain and disorganize the enemy's resistance, and prepare the way for his defeat by mounted attack.**
>
> **"If the enemy is unprepared to offer organized resistance, or if his fire system is disorganized, the cavalry must endeavor to surprise him by attacking in mounted formations. The fundamental rôle of cavalry in combat is to combine mounted and dismounted action — quickly changing from dismounted formation to mounted, and vice versa."**
>
> **—from Chapter I, *Red Army Cavalry Combat Regulations for Regiment and Squadron.***

Today there are no suicidal charges against machine-gun nests or organized enemy positions. When mounted attacks are conducted, they are made against very limited objectives known to be weak or not well organized, and these are usually attacked from flanks or rear.

Russian experience proves that today these attacks can only be accomplished successfully where the general situation greatly favors the attacker. For example, a retreating enemy column is considered a fairly good target. The Cossacks have found that one or more of the following circumstances *must* exist to permit an attack mounted:

1 Very poor or weak enemy defenses or an unorganized fire system.
2 Enemy ignorance of the presence of cavalry.
3 Terrain favoring cavalry approach so as to provide surprise.

Possessing one or more of these requisites the cavalry must insure its success by:

1 Thorough reconnaissance of enemy.
2 A preparatory mortar and artillery barrage.
3 Fire support by dismounted cavalry elements.
4 Correct timing and swift delivery of attack.
5 A quick consolidation by mounted and dismounted elements after the attack.
6 Thorough preparation for alternative action (dismounted) if enemy opposition proves too strong.

Not all Russian mounted attacks have proved successful, and in many cases Soviet horsemen have had to dismount in the face of enemy fire and battle their way forward on foot. Russian sources admit that in such circumstances poor reconnaissance is usually to blame.

### Cossacks vs. German Delaying Tactics

In 1943 when the Germans were withdrawing in the face of Russian pressure they were using every fortification, inhabited point and terrain feature to delay the Red troops. During this period the enemy on one front considered it more important to keep his forces intact than to retain any section of terrain. The defense of a particular position, therefore, lasted until the German forces were threatened with being surrounded. In playing for time the Germans held a position until it began to be untenable, and then they quickly withdrew to other points. When the Cossacks were put in the vanguard of the Russian offensive, they noticed that the Germans were quite accustomed to the speed with which Red infantry could threaten their flanks and drive them out. There was a distinct pattern to the timing of enemy actions, but against cavalry this proved a fatal weakness.

Cossack regimental commanders would engage the enemy frontally with about one-half of the regimental strength. Dismounted, this force would concentrate on finding and attacking weakpoints or small flanks in the enemy's defenses. The remaining cavalry squadrons would prepare for mounted attack. Once the dismounted elements attacked a point with any success at all the mounted Cossacks were ordered to join the assault. Situations varied, but as a general rule the Cossacks succeeded in severing the enemy's defense, and when they did, the mounted elements hurriedly surrounded the main strong points of the enemy. The usual result was that the Germans were outflanked or surrounded *before* they expected such a threat to occur. The cavalry reached and attacked new flanks much

[6] As discussed here, mounted attacks do not include those made with tanks.

faster than the Germans had experienced from Red infantry. If the enemy was not completely surrounded, but tried to withdraw on seeing the Cossack threat, the cavalry attacked mounted upon seeing them withdraw. For a while the cavalry achieved a series of minor successes by these mounted attacks.

By virtue of their individual agility and skill, Cossack units can mount or dismount with surprising speed. In all the Red cavalry, speed is demanded in going from horse to dismounted formation, and vice versa. Horse holders retain no little importance, and they are taught to move their animals with dispatch. Officers are taught to keep their led horses constantly in mind and to provide prearranged signals for bringing them forward immediately if the situation changes. Thus mobility is retained.

### The Cossacks in Winter Fighting

Like other components of the Red Army, the Cossacks have displayed consistent ability to wage war in wintertime. In the three years of war the Cossacks have fought in all the Red Army's winter operations.

Contrary to the ideas expressed by some American newspapers, the winter snows in Russia do not necessarily increase the maneuverability of Soviet cavalry units. Like all other arms, the cavalry is inhibited to a certain degree by the snows—but under some circumstances, the cavalry is hindered to a lesser degree. Actually, cavalry has a greater advantage over mechanized troops during the muddy spring than it has in winter.

Deep snows have actually taken some Cossack units off their horses and forced them to operate on skis. Red Army officers admit that many times during the Russian winter the cavalry is limited to roads only. Mounted patrols are not necessarily the best for reconnaissance, and there is evidence that small ski patrols take their place quite consistently. This is especially true in the open country where the horseman is more conspicuous in wintertime. In some localities extreme winter conditions have put the cavalry on a par with the infantry as respects mobility. It is true, however, that such conditions do not prevail all along the front, nor all of the time, but the Cossacks and other cavalry have often been severely restricted by winter elements.

On the other hand, areas covered with deep snow provide protective flanks which can often benefit cavalry regimental maneuvering. Snow and ice serve to open up certain swamps and rivers which are serious barriers in summer.

Where the snows are not too deep, Soviet cavalry offensives are conducted, mounted or dismounted, with the support of tanks. In areas where the snow is very deep, the cavalry operates without tank support and very often with the assistance of ski troops.

Where possible the Russian cavalry trys to conduct its offensive operations in terrain not too heavily covered with snow, so that other troops (armor and infantry) can support the cavalry. During the 1943-44 winter the Soviet German Front traversed many swamps and woods—terrain of great help to the Russian cavalry.

# Employment of Regimental and Divisional Artillery

*by Major Robert B. Rigg, Cavalry*

LIKE the horsemen they accompany, the Cossack artillerymen are aggressive and bold. They are accustomed to going into acton quickly. Very often these gun crews must unlimber their guns from the march and fire from open places.

Regimental artillery is employed more or less at the discretion of the regimental commander. He may keep it together, although in most instances he will attach it by platoon or gun to the squadrons (U.S. "troops") in which case the weapons will be under the control of the squadron commander. Regimental artillery is effective against enemy mechanization up to 1,600 yards.

Divisional artillery is employed under centralized or decentralized control depending on the combat requirements. This artillery is centralized for offensive action, or occasionally for the defense of a narrow front. Under decentralized control the divisional artillery is attached to regiments by battalions or batteries. In this manner they supplement the guns within the lower units.

Counterbattery fire is normally the work of divisional artillery when there is no necessity of engaging the smaller ground targets. The primary mission of divisional artillery is the neutralization of enemy AT guns, personnel, MG positions, and similar ground targets. This artillery also lays barrages on defiles, road junctions, etc. Divisional guns provide rolling barrages for the support of attacking cavalry and tanks. Red cavalry combat regulations give 220 yards as the closest that cavalry should come to an artillery target under fire, but tanks are permitted to follow a rolling barrage a little closer.

Sometimes cavalry's artillery must clear away obstacles so as to permit cavalry penetrations and freedom of maneuver. Of some interest in this respect is an official Red cavalry table designed to guide cavalry commanders in requesting artillery assistance. Only one item from the table is listed here, but this example typifies it:

> MISSION: Given good artillery observation, clear a 20 to 25 foot path through enemy wire entanglements (up to a depth of 65 feet).
>
> ARTILLERY: This can be accomplished up to a range of about 1.8 miles, and it is regarded as a two-hour job for one gun. The 122mm weapon would normally require about 85 shells; the 76mm, 200 shells.

The present Russian field manuals for cavalry place much emphasis on the use of artillery with cavalry, whereas the U. S. FM 2-15 hardly mentions the subject. In general, this is due to the difference between the U. S. and Russian cavalry tables of organization.

## Zhukov's Successes

*"In a rare press interview on January 25, 1942, Zhukov outlined a few reasons for the German shambles at Moscow. 'They were used to easy victories,' he said. 'For them war was merely maneuvers. They have neither cavalry nor skiers; their tanks cannot pass over the snow.'"*—Life, *February 12.*

*Moscow, Feb. 28. By Wireless to the New York Times, by Leigh White—Spring has come to Eastern Pomerania, the army paper Red Star says. The sun has melted most of the snow and rivers have overflown their banks, converting much of the countryside into marshes. Armor has therefore proved of limited usefulness, and the Cossack cavalry has again been used to encircle and harass an enemy who forgot that horses still have their place in an age of mechanized warfare.*

*London, March 1. Russian Wednesday midnight supplementary communique broadcast from Moscow—Troops of the Second White Russian Front continued to develop their offensive. Soviet infantrymen, tankmen and cavalrymen inflicted heavy blows on the enemy and, with the support of the artillery and air force, routed him from resistance points. Advance units of a guards cavalry detachment reached the approaches of Neustettin. The detachment attacked the Germans who had intrenched on the southwest edge of the town and attracted to themselves the main basic forces of the enemy garrison. During this time, others of our units carried out an outflanking move and broke into town from the north. Pressed from two sides, the enemy garrison was routed and the town of Neustettin—an important stronghold of German defense, a junction of 5 railways and several highways—was captured.*

*London. March 9. United Press. A dispatch to the official Soviet newspaper,* Pravda, *said Soviet members in 'round-the-clock attacks were joining with massed artillery in pulverizing the river crossings in the Stettin area, jammed with broken-up German columns trying to escape through Stettin. "The Estuary of the Oder and Stettin Lagoon are clogged with sunken enemy ferry boats, carrying trainloads of tanks, motor vehicles and men," the dispatch said. Cossack cavalry, sweeping the east bank of the estuary rounded up 8,000 Germans who had not been able to find passage. They also collected 2,000 carloads of equipment and scores of locomotives. Zhukov and Rokossovsky between them now had conquered nine-tenths of German Pomerania and were rapidly liquidating the rest of that province which is east of the Oder.*

# Tactics of Re

SOVIET cavalry, reinforced by tanks and motorized units, played a considerable rôle in many Red Army victories. This close coöperation of all mobile arms of the service—tanks, motorized infantry and cavalry—based on surprise and determined action on a bold and daring maneuver, constituted one of the distinctive features of the victorious Soviet summer offensive.

The tanks form a steel shield for the cavalry and the motorized formations; in turn, the advance of the tanks is secured by the firepower and the continuous movement of the cavalry squardons and the motorized units. Their closely coördinated actions are effectively supported by powerful blows dealt by offensive air power.

The cavalry-mechanized teams develop swiftly and deepen the breakthrough made in the enemy defense line by the infantry-artillery team. They drive deep wedges into the enemy defense zone, split it up and penetrate into the operational depth. They destroy the enemy reserves coming up to the threatened sector, seize important centers and straddle the enemy's communication lines, cut off his lines of retreat and, in coöperation with the forces advancing frontally, cut off and annihilate the main grouping of the enemy.

Combined actions of mobile arms must be skilfully organized and should be conducted by the senior field commanders with a firm understanding of the situation at all times. Aimed at the vital spots of the enemy's defense the action consists of a succession of bold flanking and turning movements. If the cavalrymen and the tankers move rapidly and without looking back (*i.e.*, disregarding their rear) the operation is bound to succeed.

During the drive against Minsk, the Kuban Guard Cossacks of Lt. General Plieff, in a swift and dashing operation with tanks and mechanized formations, seized the important enemy communication center of Stolbtzy-Nesvizh. After cutting the German communication lines, Plieff's squadrons forced the rivers Ptich and Sluch, and in a deep flanking movement decisively smashed the main enemy grouping. Together with infantry divisions advancing frontally, they occupied Minsk.

In the next stage of the operation, still in close coördination with tanks and infantry, the Cossacks swept across the German lines of retreat, occupied Barqnovitchi and Slonim, and thus opened the road to Brest-Warsaw. This brilliant action of cavalry is by no means an isolated example. There were many similar ones during the 1944 Soviet summer offensive.

Soviet experience in this war conclusively shows that in combined operations of mobile arms the most dangerous factor—and one that can blight the whole operation—is that of routine thinking. A thorough and bal-

# Red Army's Mobile Team

anced appreciation of the situation must be the basis of a creative and imaginative effort directed toward finding new ways and means of fighting. Constant striving for surprise and unflagging determination are the prerequisites for victory.

The first and basic factor of successful coördination of cavalry and tanks is the principle of using them in massed formations and throwing them into the flank and rear of the main enemy grouping. The second guiding principle is the necessity for ceaseless and closely knit interaction and mutual support at all-times and in all situations. The third principle is an unremitting support of the advancing tanks and cavalry by all available firepower and massed blows from the air.

It goes without saying that a well organized rear service is of prime importance. No matter how far the mobile units are advanced, their supplies must reach them without interruption. This must be the main concern of the higher commanders and their staffs. Tanks and motorized units assigned to the cavalry in offensive operations, as a rule, are used (1) along the axis of the main blow, (2) on sectors threatened by an enemy counterattack, (3) on the flanks, and (4) out in front of the main cavalry group. When focal points of the enemy's defense system are seized, the motorized formations consolidate the gains and hold the important areas until infantry masses are brought up. Meanwhile, the tank-cavalry team develops and further exploits the success by annihilating the retreating enemy and smashing any reinforcements on their way to the front line. The mobile team strives to achieve the complete debacle of the enemy's main grouping.

Experiences of World War II show that to inflict a decisive defeat on the enemy it is necessary to maneuver on a wide scale, and execute the mission with boldness, skill and utmost coördination between tank and cavalry formations.

During the summer of 1944 the horse guards of General Oslikovsky, in a sweeping flanking maneuver closely supported by tanks, forced the Beresina River straight from the march and seized the town of Borisov. Without letting the enemy rest, the Guards struck immediately at the important German communication center of Molodechno, and then at Lida. After capturing both towns, Oslikovsky's cavalrymen continued their relentless pursuit of the retreating enemy, inflicting heavy casualties, and then, in coöperation with tanks and infantry, took Grodno.

It is necessary to pursue the enemy with all arms of the offensive team—cavalry, tanks and motorized infantry. During such a pursuit the main object is to give the enemy no chance to recover, regroup and reorganize his shattered defense system. His battle orders must be broken up into fragments by swift, daring blows, his main centers of resistance turned and out-flanked, and the whole depth of his defense zone penetrated. The best results are achieved by parallel pursuit along several routes, with mobile groups swinging across the enemy's rear lines and encircling his main groupings.

It must be borne in mind that "the offensive impetus does not bear interruption," therefore, the pursuit must be continuous and relentless—the endurance of men and horses being taxed to the limit. The dash and elan of the pursuit, however, should not dislocate a firm and flexible direction of the operation. It is necessary to appraise realistically the maximum strain to which the cavalry can be subjected without impairing its fighting strength.

Close attention must be paid to the complex matter of coördination between the mobile arms and aviation. Airpower must provide a stout protection to the cavalry-tank-motorized infantry team at all stages of the operation. If the enemy attempts to strike a blow from the air, the fulfillment of the task entrusted to the mobile team should not be interrupted. While parrying the attack by use of every man and weapon available, the combat team must continue to move forward with even more determination in order to deepen the wedges driven into the enemy's disposition. This is the best way to paralyze the offensive moves of the enemy's air force, which then faces the risk of hitting its own troops.

Such offensive tactics, inherent to every one of the Red Army's offensives, require boldness and initiative on the part of every cavalry commander.

The great maneuvering capacity of mobile groups and the quick tempo of the offensive operations require that cavalry and tank commanders have a great deal of flexibility. They must be able to judge a situation quickly and, while making bold decisions, still see that the controlling apparatus functions properly in all stages of the combat. There is no place for routine. Every operation presents its own peculiarities, which must be evaluated correctly. A commander who is inclined to a passive attitude, procrastination, or a tendency to wait for directives from above instead of reacting instantly to every change in the situation is doomed to failure.

**Translated by Nicholas Corotneff** **from an editorial in *Red Star*, August 2, 1944**

# Tactical Employment
## Of a Provisional Mounted Squadron
### by Captain A. T. Netterblad*

DURING the difficult mountain warfare in Sicily and Italy, the 3d Infantry Division, at that time commanded by Lt. General (then Major General) Lucien K. Truscott, created a mounted horse unit, designated as the Provisional Mounted Squadron. This improvised unit, evolved from the exigencies of war, consisted of two highly valuable sections—a horse troop for cross-country reconnaissance, and a pack troop for transporting supplies to hazardous mountain positions.

#### Personnel

In the creation of the mounted squadron the original cadre included men from all division units. Every effort was made to utilize all personnel—other than key men of the various organizations—who had previous experience with horse or pack units. Although most of these men lacked extensive experience with animals, they were not entirely green. During the 59 days of combat in Italy, however, the organization suffered some casualties, and only a few of the replacements received from the pools were trained mounted or pack personnel.

Before the unit was withdrawn, Fifth Army initiated a program of training personnel for mounted units in their replacement depots, but the number of qualified men available was not great enough to meet the demands of the several divisions which by that time had animal units of some type and size.

There was a definite need for such specialists as horseshoers, packmasters, saddlers, and officers with horse cavalry or pack-train experience.

#### Procurement and Supply

Initially, the supply of animals and equipment was made available from previously liberated territory. Later, animals were either requisitioned from civilians or obtained by purchase. The division detailed one of its quartermaster officers to handle and supply the necessary replacement animals and, through purchase, to obtain necessary special supplies and equipment not available through normal supply agencies. Such items included saddles, harness, packs, spurs, leather riding gloves, horseshoes, horseshoe nails, forges, curry combs, horse brushes and many other special items. Grain was a problem until shipments arrived from adjacent countries. Long forage was secured locally.

#### Tactical Employment

Typical missions assigned the mounted reconnaissance troops were as follows:

*Reconnaissance to the flanks and to the rear of enemy positions.* Immediately upon landing in Italy in September, 1943, the horse troop was sent into action on the right flank of the 3d Division. The only road in the sector ran through the mountains directly under the observation of the enemy. This road was to be the axis of movement for the division.

The horse troop passed through the leading infantry regiment and, moving cross-country, was able to locate some of the enemy forces. This information enabled the division commander to so plan the movement of his infantry troops that the first objective attacked was taken.

From its new location the mounted troop, continuing its operation to the flank and about 5 miles to the right front determined that the enemy had not withdrawn in that direction, as had been thought possible, and again the division commander had the necessary information to assist him in the most strategic employment of his infantry. This action took place in very rugged mountains passable only to foot soldiers and animals.

During this reconnaissance route information gained by the troop indicated certain trails (not shown on the maps) which could be used by the infantry in reaching their objectives, and furnished commanders with information of the terrain ahead in which they would have to operate.

*Reconnaissance and Counterreconnaissance Screen.* On one occasion in October, when a wedge had been driven into the enemy position, our left flank was exposed to the enemy opposing British forces on our left. The horse troop, working in conjunction with the mechanized reconnaissance troop, covered this exposed flank. The mechanized troop covered the road net and pushed reconnaissance toward the enemy positions. Meanwhile, the horse troop, moving cross-country through heavy brush and streams impassable to ve-

*Commander 3d Reconnaissance Troop (Mecz) in Sicily and Italy from May through December 1943.

hicles, discovered the enemy flank and destroyed an enemy foot patrol and an outpost of 4 men.

Shortly after this encounter the enemy, not knowing our dispositions and apparently afraid of an attack from that flank, pulled his outposts back about two miles. With the knowledge of the enemy location, the infantry was able to outflank the position and helped the neighboring British forces reach their objective from the south.

*Flank Contact with Neighboring Units in the Mountains.* Early in November a division on our right was attempting to turn the flank of the enemy opposing our forces. A Ranger battalion was employed between the two divisions to secure a certain commanding hill mass. The division commander, desiring physical contact for his right flank with the Ranger battalion, sent the horse troop into the mountains to establish this contact and to reconnoiter the area in front of our right flank battalion. Contact was made and the exact position of the Rangers reported by radio.

The troop continued its reconnaissance and at dark was directed to halt for the night and to return in the morning. At daylight the troop found itself in the middle of an enemy position with Germans on three sides. This was reported to the division, and, acting aggressively, the troop attacked the Germans, surprised them, and succeeded in driving them from their position. During this encounter the troop killed about 30 of the enemy and captured about 20 more, while it suffered a loss of only one man and one animal!

## Summary

1. *The Horse Troop.* All missions of the provisional horse troop were of a reconnaissance nature. It was used in terrain where the division's mechanized reconnaissance troop could not take their vehicles. The horse troop, executing these missions with speed and daring, was invaluable to the division commander. The troop's success was due largely to its ability to move cross-country in mountains—either day or night—with a minimum of noise and cover ground accessible only to animals or foot troops.

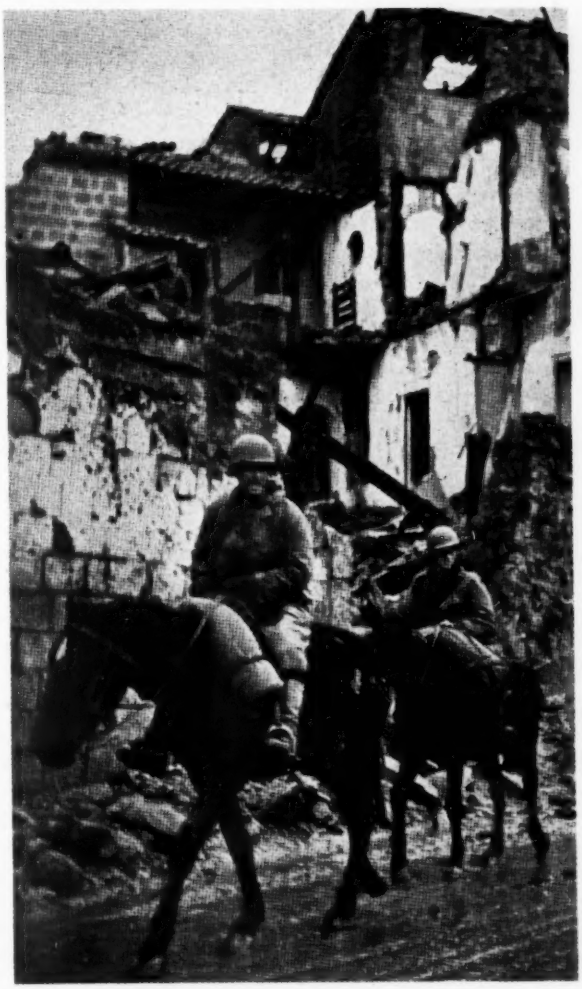
2. *Pack Battery.* The pack battery was constantly used by infantry troops in the mountains and was successful in bringing artillery fire on enemy positions from the flanks. This unit offered immediate direct artillery support to infantry troops in cross-country attacks where normal artillery fire was not always possible.

3. *Pack Train.* The primary purpose of the pack train was to deliver supplies of ammunition, water and food, to those troops in forward positions where vehicles were forced to stop because of the terrain or the tactical situation. The pack train was used every day during combat. Experiments had been conducted and plans made to utilize the mules for evacuation of wounded personnel and to pack hot meals in containers up to the combat troops.

4. *Communication.* The wire-laying platoon was used to keep the combat telephone lines laid to the front-line infantry units. Normally a part of this platoon would be attached to the infantry regiments under the supervision of the regimental communications officer. Special packs for carrying reels of wire allowed lines to be laid as the troops moved forward, and by using mules several additional miles of wire could be carried with the combat elements. One infantry battalion moved cross-country about 7 miles to reach an objective. Wire carried by mules furnished telephone communication in this unit. The heavy field wire which was laid stood up well in spite of heavy shelling, and communications were maintained.

5. *Portée.* The continuous operations in mountains compelled the use of animals. Whenever open terrain was encountered, the mechanized reconnaissance and supply units were utilized, and the animals were moved forward in trucks, so that continuous operation was assured.

**A mounted unit moves through a wrecked town in southern Italy. Horses and men were often portéed to the front.**



# MIXED CAVALRY RE

***The Spanish conflict, '37-39, became a laboratory for modern warfare—Russia, Germany, Italy tried out new weapons, developed new tactics. Since then, many Spanish officers have had access to German military schools. Here one describes a horse-mechanized regiment and its place in the present and future.***

## by De Sotto

THE German army, which constantly amazes us with its large armored and motorized units, has not discarded its units of corps cavalry, in spite of the fact that its theaters of operations, generally speaking, have been plains, well suited to the use of large armored units. It is from such cavalry units that the Germans pick the reconnaissance groups for their divisions. These reconnaissance groups were certainly much used during the past (1942-43) Russian winter—that implacable enemy of the internal combustion motor.

In our country (Spain), where the temperatures will never be low enough to interfere with armored or motorized equipment, the topography of the terrain, on the other hand, will present large inaccessible areas, and other areas only slightly more favorable, in which the most suitable and rapid means of transportation will not be the machine, but the horse.

Whatever the nature of the zone of operations, however, the need for reconnaissance for the security of officers and men and for the exploitation of victory will always be the same.

Rapid and easily maneuverable units made up partly of squadrons of horse cavalry and capable of giving corps commanders information with a sufficient margin of time and space, are an absolute necessity.

### Corps Reconnaissance

Let us see whether or not the present corps regiment is in possession of the equipment and elements giving the proper balance between missions and the zones where they must be carried out.

It cannot be conceived that a cavalry commander, when on a reconnaissance mission or when providing security for troops marching confidently behind him, would limit himself merely to announcing to the command: "Here they are! The enemy's forces are strong (or weak)," etc. If he is to fulfill his mission, the commander must provide security for himself and the army corps in all directions (security in force in the most dangerous directions) besides engaging the enemy in either offensive or defensive action over a really considerable area. It is certain that he will make use of his great maneuvering ability, which we cannot anticipate as being superior to that of the enemy.

Naturally, this will not be over the entire zone that he is to explore, but only over a small part of it, or at some definite point. Also, he is always exposed to deception or attack by enemy detachments attempting to slip past his patrols. What these detachments are trying to do is to make progress difficult for the divisions moving up to the front, for they are the ones that are a source of danger to the enemy command.

Generally, large enemy detachments will not slip by unnoticed, but will be found and repulsed about the time that they are signalling back to their own command that contact is about to be established. From this moment on, difficulties increase for the mixed cavalry regiment that is obliged to maintain itself over the broad fronts mentioned in all the regulations. These fronts are not continuous, but depend on where the enemy is attacking and maneuvering at a given moment; for the enemy will be just as much in a hurry to learn, and will need to learn just as much as we, what is on the other side of that curtain of fire. While they are still talking of the approach march in the main body of the corps, a whole day will have been spent talking of combat—combat on a small scale, yet normal for the small forces involved in such detachments.

It is because of these factors, and many others still unforeseen that in all regulations and tactical studies, the need of reinforcements in the regiment of mixed cavalry is emphasized. This need is certain, although it is equally inconceivable that these regiments should be enlarged to the point where the means at the disposal of the regiment becomes incapable of handling the augmented forces.

### Composition

Now, it is believed that such reinforcements normally should be made up of troops which, with a high degree of maneuverability, have the ultimate mission of supporting the regiment of mixed cavalry, and another normal mission benefiting the infantry division advancing into the front lines. This means that the present regiments of mixed cavalry should be apportioned

★(Translated at the Command and General Staff School from a Spanish article by De Sotto in *Ejercito*, January, 1943.)

# REGIMENTS*

ample reconnaissance zones which will leave gaps in the terrain to be filled by the above mentioned reinforcements, whose strength should not be less than a group of three squadrons (with antitank and antiaircraft guns) per infantry division.

If such a plan were accepted, it is believed further that it would be necessary to consider substituting, in place of the mounted group, used by mixed cavalry regiments at the present time and limiting the latter so much in their movements, another group of squadrons, also mechanized, which would constitute the true combat group.

Besides a nucleus of motorcycle troops, the mixed cavalry regiment should also possess other powerful offensive elements which might very well be units of motor vehicles mounting guns.

Under these circumstances, it is conceivable that the corps cavalry service could be organized as follows: One group of fast, mechanized squadrons with powerful means for the transmission of messages to be used for seeking information at convenient distances (15 to 20 miles) by penetrating into the enemy's areas and main highways, and for seizing possession of points of strategic or tactical importance indicated by the command. That is, their service would be performed for the benefit of the corps command. There should also be a powerful, rapid, highly maneuverable group, also mechanized, which should constitute the second group of squadrons of the army corps and should be used as a powerful supporter of parties sent out by the first group.

### Missions With the Division

From the broad field of the army corps command, attention is diverted to the division. Here are found groups of mounted squadrons employing horses and a certain proportion of motorcycle troops which should not exceed a third of the total force in the zones of action of these large units. Missions are identical with those of the mixed cavalry regiments but in this case, they fulfill them as detachments of the divisions, which they secure and which are always ready to reinforce the regiment of mixed cavalry within the normal zone of activity of these large units.

With this solution of the problem, the regiment of mixed cavalry does not need to have a mixed composition (motor and horse) for the transportation of its squadrons and for their use in combat as is the case at the present time. Nevertheless, the thing aimed at with such a mixed system—the maneuverability of the mixed cavalry regiment in any sort of terrain, and which truly is variable enough in our country—is really attained. This is due to the fact that in groups of horse-mechanized cavalry, the interchange of missions may be amplified greatly by the use of the horse cavalry provided for the security of the divisions when the need arises.

This does not mean that the service of the valiant mechanized units is not needed. Regardless of how difficult the terrain may be to armored and motorized elements, there are always some roads whose military value is in inverse ratio to the frequency to which they are encountered. Such roads can be given over to mechanized troops for reconnaissance and the guarding of vital points, while their brothers on horseback advance more slowly yet at all times, furnish protection for the army corps against surprise and other untoward events.

Last of all, among the offensive missions of the mixed cavalry regiments there is the task of providing security. With the small forces, as reflected in the staffs, and even with a great reduction in the personnel charged with the custody of stock and equipment, no matter how little the front to be covered is extended, the regimental commander will have his reserves so reduced that he is likely to find it impossible to fulfill such a mission properly.

### In Defense

Although the cavalry was never a defensive arm, its troops must always be ready to make their best effort in a defensive mission, which is less glorious but at times just as valuable. It is for this reason that the regiments of mixed cavalry must be so organized as to do their part, not only in performing their normal missions —coöperating in counterattacks, reëstablishing the situation, promptly closing the breach produced in the defensive position, and carrying on delaying action—but other less frequent tasks, such as occupying one of the zones of the defensive system. In its organization, however—and this is believed perfectly adequate—the idea of offense has existed more than the idea of defense, and it is to this end that the present mixed cavalry regiment is geared.

The mixed cavalry regiment cannot be looked upon as merely a function of the number of its vehicles and horses, in which respect its effectiveness is similar to that of a line battalion when occupying a center of resistance—a mission which to a certain degree is foreign to and outside the field of the tactical characteristics of cavalry and whose employment as such will be recommended only in unusual circumstances.

### Final Considerations

Army corps cavalry should exist in greater force, with a certain degree of separation worked out and established between horse and mechanized units in accordance with the normal missions for which they are to be used. In an effort toward *specialization,* without attempting to create regiments to be used for every purpose, it is possible to be led unavoidably to organize units that carry out their special tasks in a mediocre manner. Certain means that from the theoretical point of view appear entirely proper, may prove to be only beautiful aspirations during the actual campaign.

Cavalry is an arm costly to organize and maintain. Under certain circumstances, which must be avoided as much as possible, it wears out rapidly. Although vulnerable to aviation as some claim, in this respect, it is much like other arms less discussed.

It is an error to believe that these troops alone are fit for violent and decisive action, capable of such victories as to make us forget the financial sacrifices entailed by their organization and maintenance. It is true that such action is the pride of such organizations and their most outstanding characteristic. But during a campaign that offers little or no opportunity for them to operate, the horse cavalry and motorcycle troops do not rest on their past laurels while others labor. The protection of advancing or retreating troops, the security of the lines of communication with the rear guard, filling a breach in a sector, participating in counterattacks —including infiltration into the ranks of the infantry so as to increase or reëstablish the continuity of the defense—were never missions foreign to cavalry, which has not hesitated to carry them out with the same enthusiasm and spirit of abnegation that has been shown by cavalry troops of all time.

When persons of relative authority are heard to say that the age of horse cavalry is past and that the formula of victory is to be found in total mechanization and motorization, one is reminded of those faulty theories (as subsequent events proved) that were maintained at the time of the war of 1914-1918. Then the belligerents were prompted to dismount their squadrons and transform what at that time was excellent cavalry into mediocre infantry with no hope of the reverse change at any given moment—which moment with certainty appeared.

It is a source of surprise how little attention some pay to the many events of the recent battles on the Eastern Front where, certainly, the horse has not become discredited. The rigors of the Russian winter, as well as the recent operations of the Rumanian cavalry in the zone of the armies of General von Bock, have both served to demonstrate to the German command the qualities and aptitudes of cavalry to such an extent that the increase in the number of horses in the German army is a manifest fact.

The persons who certainly are in danger of being mistaken are those who seek victory by means of radical solutions without stopping to think of the resources necessary to take care of the needs of a campaign at all moments—tradition and a martial spirit and, lastly, the probable theaters of operation which have so much to do with the decisions of the command.

It is well that our (Spanish) army possesses powerful armored units that are fast and motorized. But these units are maintained in a proper proportion without forgetting that other arms have a place in the battle—a place that must not remain vacant if the army is to possess the flexibility and maneuverability necessary and indispensable in present *blitzkrieg* warfare.

## U. S Experiment in the Horse-Mechanized Regiment—1941

**The Horse and Mechanized Regiment in effect is a task force. Its animal and mechanized strength in reconnaissance troops, its roving capabilities and fire power, its communication, pioneer and antitank sections with its self-maintained service section—all fit it for all purposes of reconnaissance, security and limited combat.**

**The capabilities of this type regiment were admirably demonstrated by the action of the U. S. 4th Cavalry (H & M) in the GHQ. Maneuvers of 1941.**

**In order to meet the threat of the armored force, which was endeavoring to encircle Shreveport from the north, the 4th Cavalry, less the detachments on the west flank, was assembled at Logansport, entrucked, and moved to Greenwood, 25 miles distant and a few miles west of Shreveport. There it held off the reconnaissance of the armored force until the arrival of the 6th Infantry Division. Then, with Army approval, it entrucked and moved to the vicinity of Marshall, from which point it was to gain contact with the enemy, fill the gap between the 2d Cavalry Division and the 6th Infantry Division, and cover lines of supply.**

**Later the same afternoon, when enemy forces crossed the river in the Logansport area and outflanked the 2d Cavalry Division, it became necessary to commit division reserves and shift most of the 3d Brigade to forestall the 1st Cavalry Division and prevent the 2d Infantry Division from gaining a foothold. As the pressure increased it became evident that the 2d Cavalry Division would be forced still farther back.**

**At 4:05 P.M. the 4th Cavalry (less one SC troop) was ordered to assemble near the division command post at DeBerry as a new reserve. At the time of the order the 4th Cavalry was about 25 miles away. One scout car troop was left at Marshall to patrol that vicinity. Within 45 minutes the leading troop of the Horse Squadron arrived, and by 5:15 the entire 1st Squadron had arrived, detrucked and was ready for action. By 5:30 the remainder of the regiment which had been out on patrol had assembled and reached the CP. This furnished an adequate reserve to meet both the penetration and the flanking maneuver of the "Blues" and to reëstablish lines as directed by Second Army.**

**During a 48 hour period, the 4th Cavalry engaged in all the actions mentioned, traveled approximately 120 miles, and was fresh and ready for action when the maneuver was called off. The 4th Cavalry, as a horse and mechanized regiment, proved to be a most capable task force for reconnaissance and security and for combat when given appropriate missions.**

**—Extracts from letter of Commanding General, 2d Cavalry Division, October 4, 1941.**

# TANK-DOZER TIPS

COMPILED BY
The 16TH Armored Engineer Battalion
First Armored Division

PHOTOLITHOGRAPHED BY 66TH ENGR TOP CO, U.S. ARMY, SEPT. 1944

1

Himmel! Look vere it vent!

The Tank Dozer has completely changed the meaning of the words "TANK-COUNTRY." Used properly it is one of the most important offensive weapons.

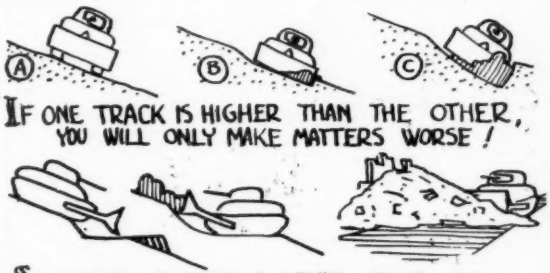
2

A Dozer-driver has 2 things to learn:

Tank-driving
and earth-moving.

You can learn the fine tricks of dirt pushing with a model dozer-blade. It will save you time.

3




IF ONE TRACK IS HIGHER THAN THE OTHER, YOU WILL ONLY MAKE MATTERS WORSE!



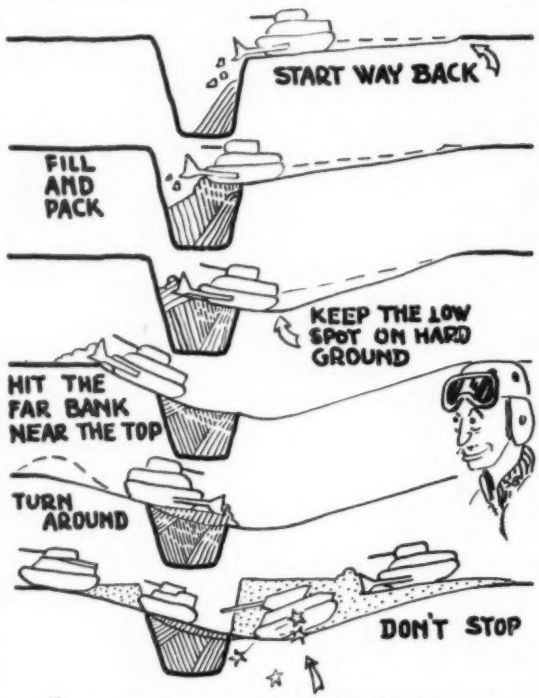
SO MAKE OR FIND A LEVEL SPOT TO START YOUR CUT.

BECAUSE OF ITS LENGTH A TANK-DOZER LIKE A LONG CARPENTER'S PLANE CAN REALLY DO A SMOOTH JOB.

IF YOU KNOW HOW TO USE YOUR BLADE!

4

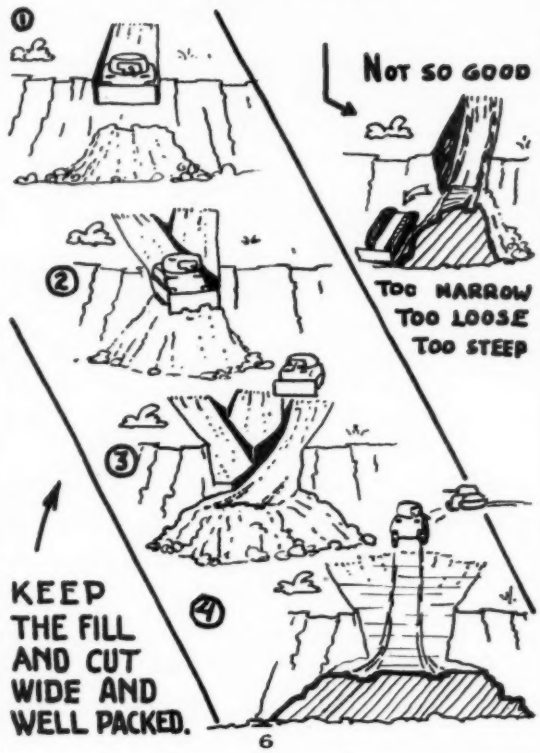
# TO FILL A GULLY:




—LET TRAFFIC POUND HARD GROUND—

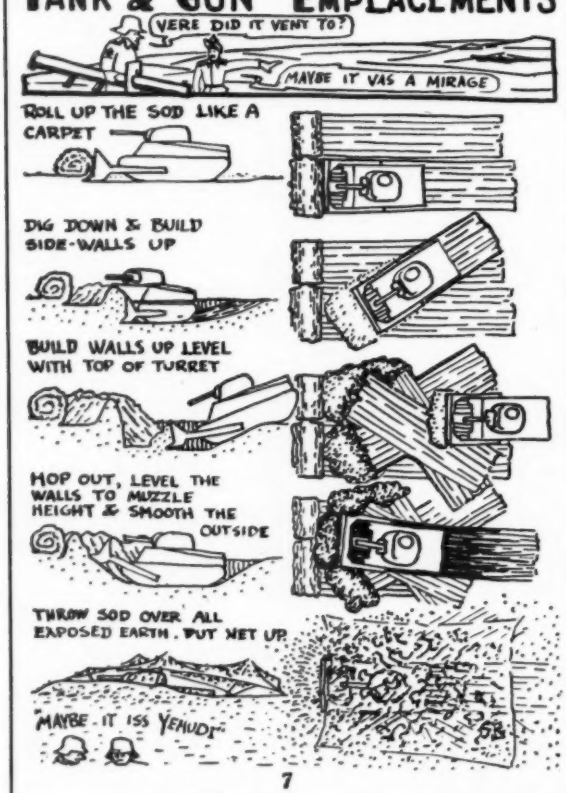
5

# TO MAKE A FILL:




6

# TANK & GUN EMPLACEMENTS


VERE DID IT VENT TO?
MAYBE IT VAS A MIRAGE
ROLL UP THE SOD LIKE A CARPET
DIG DOWN & BUILD SIDE-WALLS UP
BUILD WALLS UP LEVEL WITH TOP OF TURRET
HOP OUT, LEVEL THE WALLS TO MUZZLE HEIGHT & SMOOTH THE OUTSIDE
THROW SOD OVER ALL EXPOSED EARTH. PUT NET UP
MAYBE IT ISS YEHUDI

7

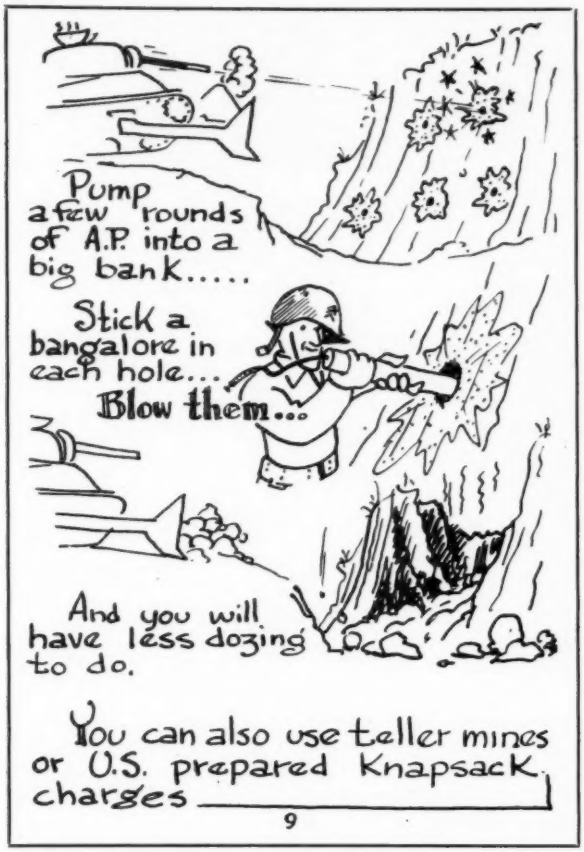
A good tank dozer man must be both a tanker and an engineer. He must be able to pull mines, to swing a detector, to use explosives, to cut timbers etcettera.

His job is getting a column of tanks and their supply trucks past the obstacles. When its quiet enough, all but the driver should hop out and make themselves useful.

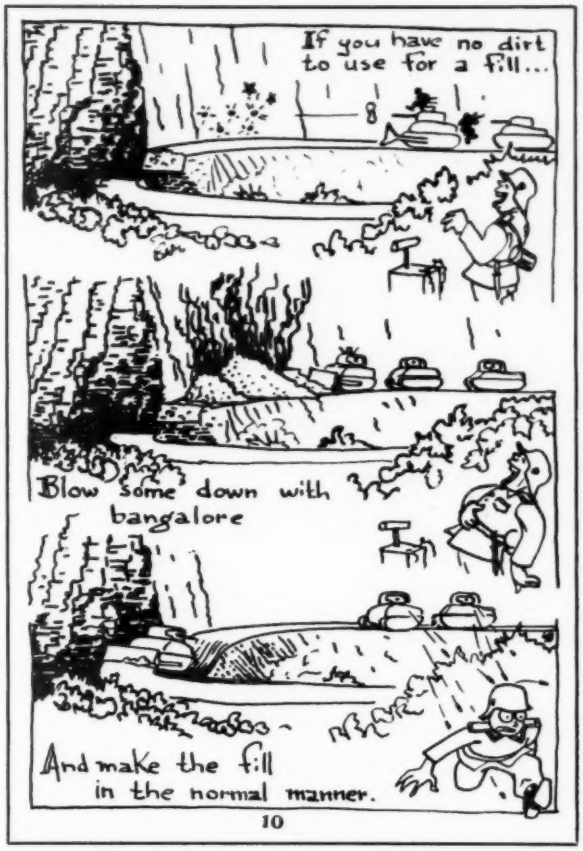
While Joe is dozing, the others can blow down the far bank, mark the bypass, sweep for mines, ~~hunt for souvenirs~~, and thus speed up the job so every one can go home

So, learn some of the tricks of the engineers trade!

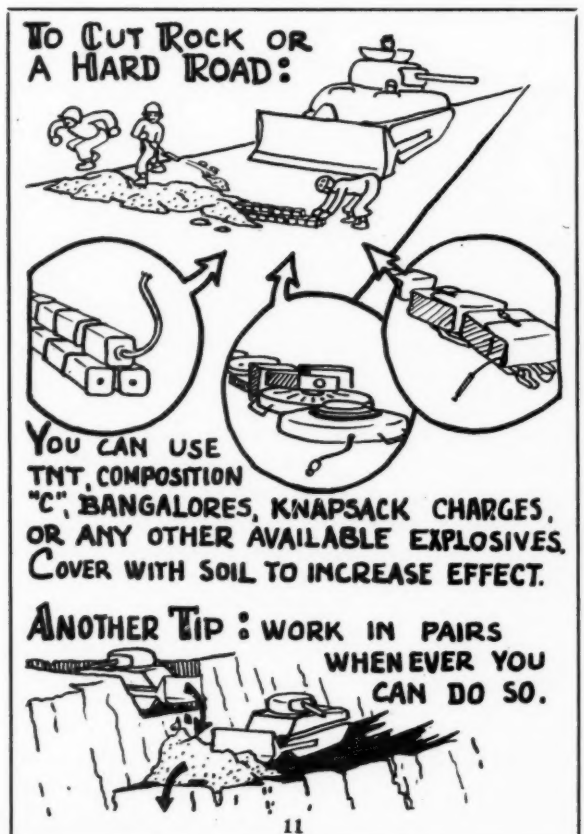
8


Pump a few rounds of A.P. into a big bank.....
Stick a bangalore in each hole...
Blow them...
And you will have less dozing to do.
You can also use teller mines or U.S. prepared Knapsack charges

9


If you have no dirt to use for a fill...
Blow some down with bangalore
And make the fill in the normal manner.

10


TO CUT ROCK OR A HARD ROAD:
YOU CAN USE TNT, COMPOSITION "C", BANGALORES, KNAPSACK CHARGES, OR ANY OTHER AVAILABLE EXPLOSIVES. COVER WITH SOIL TO INCREASE EFFECT.
ANOTHER TIP: WORK IN PAIRS WHENEVER YOU CAN DO SO.

11

There are unique instances where tank-dozers will save the day. An improvised one saved a beach head by putting out many ammo fires nightly for several months during shelling and dive bombing attacks

12

# Book Reviews

AXIS RULE IN OCCUPIED EUROPE. By Raphael Lemkin, Carnegie Endowment for International Peace. Columbia University Press. $7.50.

The preface of this book might well stand on its own merits as an excellent essay on German technique of occupation. Mr. Lemkin explains the conception of his books as follows:

"The present book grew out of a desire to give an analysis, based upon objective information and evidence, of the rule imposed upon the occupied countries of Europe by the Axis Powers—Germany, Italy, Hungary, Bulgaria, and Rumania. This régime is totalitarian in its method and spirit. Every phase of life, even the most intimate, is covered by a network of laws and regulations which create the instrumentalities of a most complete administrative control and coercion. Therefore these laws of occupation are an extremely valuable source of information regarding such government and its practices. For the outside world they provide undeniable and objective evidence regarding the treatment of the subjugated peoples of Europe by the Axis Powers. The author feels that such evidence is especially necessary for the Anglo-Saxon reader, who, with his innate respect for human rights and human personality, may be inclined to believe that the Axis régime could not possibly be as cruel and ruthless as it has been hitherto described."

By the efforts to legalize their violations of international law the Germans have left in the various conquered countries a network of the statutes enacted, to serve as indisputable evidence of Axis cupidity and brutality.

Mr. Lemkin gives an outline of the processes used in each country to subjugate the people, and quotes the laws passed. In order to facilitate a parallel between Axis edicts and code violations, he closes the book with a reprint of that portion of the Hague Agreement covering the laws and customs of war on land. Subdivisions and section headings are arranged in a logical manner to assist the selective reader.

A need for this book has been manifest for some time and it will be welcomed not only by men dealing with military government—to whom it should prove essential—but by all workers, military or social, who must have an understanding of the conditions of occupied countries before working in them.

✦ ✦ ✦

IN THE MARGINS OF CHAOS. By Francesca M. Wilson. Macmillan. $3.00.

Since 1919 Miss Wilson has been doing relief work, usually with the Society of Friends, all over Europe and in Russia and Africa. She was with wounded Serbs in Corsica and Bizerta, from whence she went to Serbia, and on to Russia in the famine of 1922. The Spanish Civil War made a fresh call upon her, and in 1939 she went to Rumania and Hungary to help Polish refugees. Possessed of a deep feeling for human beings, and an insatiable intellectual curiosity, doubtless abetted by the clarity of vision typical of the Quaker spirit, the author has written a rich and vivid record of the peoples she has encountered.

Of particular interest is her account of Russia in the early days of the revolution. She contrasts the aims and policies of the leaders with the established life of her own English society, and contradicts much of the then current propaganda set forth by anti-revolutionary forces.

The relief workers of this war will be interested particularly in the *Appendix* containing many suggestions for organization and reconstruction gleaned from personal experience.

✦ ✦ ✦

WHEN THE FRENCH WERE HERE. By Stephen Bonsal. Doubleday, Doran. $3.00.

The frontispiece states that this is "A narrative of the sojourn of the French Forces in America, and their contribution to the Yorktown Campaign, drawn from unpublished reports and letters of participants in the National Archives of France and the Manuscript Division of the Library of Congress."

This story of the little publicized Revolutionary Campaign of the French Auxiliaries from Narragansett Bay to the Virginia Capes is the result of a "peace pact" between the author and Premier Clemenceau. While visiting this country in 1922 the Tiger of France observed that the line of march of our French Allies in the Revolutionary War was unmarked. He and his friend, Colonel Bonsal, signed a pact to the effect that at the first opportune moment they would follow in the footsteps of the indispensable French "auxiliaries." The Premier died before he could fulfill the pact, but this delightful book upholds Colonel Bonsal's part in the agreement and fills a sadly neglected page in our history books.

To those familiar with Gloucester and Yorktown it will enrich the already glamorous history of tidewater Virginia.

✦ ✦ ✦

WHAT TO DO WITH JAPAN. By Wilfrid Fleisher. Doubleday, Doran. $2.00.

Mr. Fleisher was managing editor of Japan *Advertiser* until its forced abandonment in 1940. His book is not so valuable for its actual suggestions of "What To Do With Japan" as for its intelligible explanation of the social, economic and political tenets of the Japanese.

Many readers will disagree with Mr. Fleisher's suggestions for handling a conquered Japan. It is believed that few men who have fought in the Pacific will be in accord with the idea of retaining an Emperor in the hope that he will prove a foil for good as he has for evil. The boogie of Communism, waved again in these pages, has, like the "Wolf" boy in Aesop, lost its fearsomeness from overuse.

REPORT FROM RED CHINA. By Harrison Forman. Henry Holt. $3.00.

In his review of *Report From Red China* in the *New York Times* Book Review Mr. Edgar Snow, author of *People on Our Side* says:

"Harrison Forman's *Report From Red China*, with its fresh, vivid and comprehensive account of the battle for life and freedom under China's partisans, is an extraordinarily timely book, and of considerable historic as well as contemporary value. . . .

"Forman reports enthusiastically on the ways in which the Communists have organized the people, promoted literacy, established local self-government, aroused patriotism and the martial spirit by widespread use of drama groups and recognition and glorification of "labor heroes"; how they have reformed loafers, eliminated prostitution, emancipated women and mobilized the population to achieve economic self-sufficiency, without outside help. He quotes partisan leaders as declaring that China alone, if her population and resources had been properly organized for resistance, could have driven the invader from most of his key positions. . . .

"The author has been an accredited foreign correspondent in China throughout most of the nation's eight-year ordeal. Writing against a long background of experience in Kuomintang China, his comparison of partisan leadership as he saw it working to mobilize the 80 to 90 million peasants liberated from Japanese control makes richly instructive reading which no intelligent American can afford to ignore."

This is the first information in book form to come out of the great interior of China for some years. This fact, added to the increasing activity in the Burma Theater, makes this a book of particular timeliness.

* * *

GREEN ARMOR. By Osmar White. W. W. Norton. $3.00.

Mr. White, a new Zealander, was familiar with the islands of the Pacific before the war. Accredited as a correspondent at the outbreak of war, he was detailed to New Guinea. Invalided from there, he was later accredited to the U. S. Pacific Fleet, and then to the U. S. Army for the New Georgia invasion, where he was badly wounded. He is now a reporter on the Western Front in Europe.

In *Green Armor* the author endeavors to emphasize the importance and difficulties of the jungle in Pacific warfare. It would appear from these pages that a lack of knowledge of the insidious animosity of nature and the peculiarities of jungle fighting was our greatest weakness in the early days of the war. A heavy price was paid to learn that carefully adapted training and special tactics were essential to wage a successful campaign in these islands. How well these lessons were learned has been amply proven.

This book does not in anyway duplicate material already published by other correspondents who have written on action in the Pacific Theater.


## William The Silent
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The life of "The wisest, gentlest, bravest man who ever led a nation."

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By WALTER WHITE

"A wind is rising and the rivers flow throughout the world of free men everywhere, and they will not be kept in bondage." . . .
THOMAS WOLFE.

Walter White, executive secretary of the National Association for the Advancement of Colored People, reports on the Negro's status in World War II.

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## REPORT FROM RED CHINA

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## Veteran's Rights And Benefits

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Colonel Mariano A. Eraña
Lt. Colonel Arthur Symons

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*For all members of the Armed Forces.*

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**EARL C. O'ROKE**

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PARTY LINE, by Louise Baker ..... 2.50
NODS AND BECKS, by Franklin P. Adams ..... 2.00
ANYTHING CAN HAPPEN, by G. Papashvily ..... 2.00


HEADS UP—HEELS DOWN. By C. W. Anderson. Macmillan. $2.50.

Mr. Anderson states in his "Author's Note"—"If your riding and handling of horses begins and ends at the mounting block you may become a rider, but never a horseman." It is in an effort to educate more horsemen that the author has written this excellent book. His style is delightfully cryptic in spots, with considerably more reader-interest than the average instructor's manual.

Artist as well as author, Mr. Anderson has illustrated his points with fine drawings that add to the clarity of the reading matter and the pleasing format of the book. It is indeed a welcome addition to the limited supply of really good books on horsemanship.

EQUITATION. By Virginia Draper Robinson. Hobson Book Press. $2.50.

Doubtless, as her publishers state, Miss Robinson is an excellent and knowledgeable horsewoman. Perhaps she is capable of imparting her knowledge to her students, but she has over-reached her abilities in attempting to enter the literary field. In fact, *Equitation* is so badly written as to verge on the illiterate and the material offered in no way compares with *School for Riding*, by Kournakoff or *Horses*, by Self—both in publication for some time. Even the paper and printing of this book are of an exceptionally poor quality.

DOWN THE STRETCH. The Story of Colonel Matt J. Winn as Told to Frank G. Menke. Smith & Durrell. $3.50.

*Down the Stretch* is the history of a horse race and a man. Colonel Matt Winn purchased Churchill Downs when it was about to be closed in 1902, and succeeded in making the Kentucky Derby the most famous race in America.

For the horseman interested in racers this book holds much. Several charts condensing the history of the Derby from 1875 to 1944, list the date, winner, length won by, jockey, weight second, third, subscribers, starters, net to winner, time and track, sire, breeder, owner, trainer, favorite, and odds on the winner.

The book is profusely illustrated and filled with salient comments on the different entries. Some of these comments, particularly Colonel Winn's choice of the "best" horse, may start arguments wherever horsemen gather.

McNAIR, EDUCATOR OF AN ARMY. By Chief Warrant Officer E. J. Kahn, Jr., Infantry Journal. $2.00.

This book was received too late for formal review. Most of the material contained therein was published originally in the *New Yorker*. It contains a brief record of the life of Lieutenant General Lesley James McNair.

THE COMING AIR AGE. By Reginald M. Cleveland and Leslie E. Neville. Whittlesey House. $2.75.

To those interested in the postwar rôle of aviation, this blueprint of the future will prove of immense interest. The chapters cover a variety of problems to be met and solved in the Air Age—commercial flying equipment, aircraft and economics of private flying, future airports, air-traffic control and Air Age education. It is probable that the changes in our thought and parlance as a result of our acceptance of air in daily life will be exhibited most keenly in the rewriting of textbooks for school use.

The pages dealing with reconversion of factories after the war have a slight whining note with undue emphasis on the patriotism exhibited by those who pay large excess profits taxes. This, however, represents a comparatively small portion of the book, and in no way detracts from the interesting comments on the future possibilities of the Air Age.

✦ ✦ ✦

GENERALS IN THE WHITE HOUSE. By Dorothy B. Goebel and Julius Goebel, Jr. Doubleday, Doran. $2.75.

The Goebels have presented a readable and logical outline of the men who have gone to the White House from the army. It is certainly an excellent time for the attention of the nation to be called to past records—the only yardstick by which the public can gauge the effect of an army man who tries to cap his military career with a political high hat. The deductions to be drawn are not encouraging but they need reiteration at this time, when dominant military personalities might conceivably be carried into administrative power on the strength of their military accomplishments and the publics general acclaim.

✦ ✦ ✦

VETERAN'S RIGHTS AND BENEFITS. By Colonel Eraña and Lieutenant Colonel Symons. Military Service. $1.00.

PSYCHOLOGY FOR THE RETURNING SERVICE MAN. By a Committee of The National Research Council. Infantry Journal, Penguin. $.25.

When men are mustered out of the army as veterans of World War II, they have certain rights. These have been earned, and are in no sense of the word largess.

In *Veteran's Rights and Benefits* Colonels Eraña and Symons have carefully translated the obtuse legal phraseology of the laws dealing with the service man's benefits into simple, understandable language. Much of the information will be of immediate assistance, some will be of future value, and still more will be of aid to the veteran's family.

*Psychology for the Returning Service Man* has been compiled by a variety of collaborators in an effort to meet the psychological needs of the returning veteran. It is a comprehensive coverage of most of the problems that the service man will face on his reversion to civilian status. The excellent material contained in this book would probably have had more appeal had it been couched in less personal language. The constant reiteration of the personal pronoun "you" tends to weaken the psychological appeal of a book.


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# The Following Books!

THE CAVALRY JOURNAL has had calls for the following out-of-print books—for which we will pay the listed prices, plus postage:

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**TANK WARFARE**, by *Lester* ..... 2.00

**ATTACK**, by *Mische* ..... 2.00

**MILITARY STRENGTH OF THE POWERS**, by *Werner* ..... 1.00

**HORSEMANSHIP**, by *Brooke* ..... 4.00

**ART OF RIDING**, by *McTaggart* ..... 2.50

**ART OF MODERN WARFARE**, by *Foertsch* ..... 2.00

If you have any of these books, and no longer need them, send them to—

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*As a result of inquiries received in our Book Department* THE CAVALRY JOURNAL *is starting a new service. Readers of the* JOURNAL *are invited to write to the Book Department and give subjects on which they would like lists of authoritative books. Lists containing recognized and new publications, with brief summaries of the text, will be sent at once. Lists of fiction will also be compiled. Books may be selected from these lists for immediate shipment, or at stated intervals.*

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